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Montgomery, Alabama 36130-1463
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July 17, 2026

Mr. Taylor Rice
Member
Central Alabama Aggregates, LLC
PO Box 640193
Pike Road, AL 36064

RE: Draft Permit Modification
Shorter Pit
NPDES Permit Number AL0084458
Macon County (087)

Dear Mr. Rice:

Transmitted herein is a draft of the above referenced permit. Please review the enclosed draft permit carefully. If previously permitted, the draft may contain additions/revisions to the language in your current permit. Please submit any comments on the draft permit to the Department within 30 days from the date of receipt of this letter.

Since the Department has made a tentative decision to modify the above referenced permit, ADEM Admin. Code r. 335-6-6-.21 requires a public notice of the draft permit followed by a period of at least 30 days for public comment before the permit can be issued. The United States Environmental Protection Agency will also receive the draft permit for review during the 30-day public comment period.

Any mining, processing, construction, land disturbance, or other regulated activity proposed to be authorized by this draft permit is prohibited prior to the effective date of the formal permit. Any mining or processing activity within the drainage basin associated with each permitted outfall which is conducted prior to Departmental receipt of certification from a professional engineer licensed to practice in the State of Alabama, that the Pollution Abatement/Prevention Plan was implemented according to the design plan, or notification from the Alabama Surface Mining Commission that the sediment control structures have been certified, is prohibited.

This permit requires Discharge Monitoring Reports (DMR) to be submitted utilizing the Department's web-based electronic reporting system. Please read Part I.D of the permit carefully and visit <https://aepacs.adem.alabama.gov/nviro/ncore/external/home>.

Should you have any questions concerning this matter, please contact Ange Boatwright at (334) 274-4208 or maboatwright@adem.alabama.gov.

Sincerely,


William D. McClimans, Chief
Mining and Natural Resource Section
Stormwater Management Branch
Water Division

WDM/mab File: DPER/52762

cc: Ange Boatwright, ADEM
Environmental Protection Agency Region IV
Alabama Department of Conservation and Natural Resources
U.S. Fish and Wildlife Service
Alabama Historical Commission
Advisory Council on Historic Preservation
U.S. Army Corps of Engineers Mobile District
U.S. Army Corps of Engineers Nashville District
Alabama Department of Labor



Birmingham Office
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Office
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Coastal Office
1615 South Broad Street
Mobile, AL 36605
(251) 450-3400
(251) 479-2593 (FAX)



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM INDIVIDUAL PERMIT

PERMITTEE: Central Alabama Aggregates, LLC
2285 Zelda Road
Montgomery, AL 36106

FACILITY LOCATION: Shorter Pit
US Hwy 80
Shorter, AL 36075
Macon County
T17N, R21E, S34, 35
T16N, R21E, S2, 3

PERMIT NUMBER: AL0084458

DSN & RECEIVING STREAM: 001-1 Unnamed Tributary to Calebee Creek/Groundwater
002-1 Unnamed Tributary to Calebee Creek/Groundwater
003-1 Unnamed Tributary to Cubahatchee Creek/Groundwater
004-1 Unnamed Tributary to Calebee Creek/Groundwater
005-1 Unnamed Tributary to Calebee Creek/Groundwater

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE: December 17, 2024

EFFECTIVE DATE: December 17, 2024

EXPIRATION DATE: December 16, 2029

MODIFICATION ISSUANCE DATE:

MODIFICATION EFFECTIVE DATE:

DRAFT

Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
Dirt and/or Chert, Construction Sand and Gravel, Wet Preparation, Transportation and
Storage, and Associated Areas

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PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from all Outfalls, identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfalls have been constructed and certified. Discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency ¹
pH 00400	6.0 s.u.	-----	8.5 s.u.	Grab	2/Month
Solids, Total Suspended 00530	-----	35.0 mg/L	70.0 mg/L	Grab	2/Month
Flow, In Conduit or Thru Treatment Plant ² 50050	-----	Report MGD	Report MGD	Instantaneous	2/Month

B. REQUIREMENTS TO ACTIVATE A PROPOSED MINING OUTFALL

1. Discharge from any point source identified on Page 1 of this Permit which is a proposed outfall is not authorized by this Permit until the outfall has been constructed and certification received by the Department from a professional engineer, registered in the State of Alabama, certifying that such facility has been constructed according to good engineering practices and in accordance with the Pollution Abatement and/or Prevention (PAP) Plan.
2. Certification required by Part I.B.1. shall be submitted on a completed ADEM Form 432. The certification shall include the latitude and longitude of the constructed and certified outfall.
3. Discharge monitoring and Discharge Monitoring Report (DMR) reporting requirements described in Part I.C. of this Permit do not apply to point sources that have not been constructed and certified.
4. Upon submittal of the certification required by Part I.B.1. to the Department, all monitoring and DMR submittal requirements shall apply to the constructed and certified outfall.

C. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Sampling Schedule and Frequency

- a. The Permittee shall collect at least one grab sample of the discharge to surface waters from each constructed and certified point source identified on Page 1 of this Permit and described more fully in the Permittee's application twice per month at a rate of at least every other week if a discharge occurs at any time during the two week period, but need not collect more than two samples per calendar month. Each sample collected shall be analyzed for each parameter specified in Part I.A. of this Permit.

¹ See Part I.C.2. for further measurement frequency requirements.

² Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department.

- b. If the final effluent is pumped in order to discharge (e.g. from incised ponds, old highwall cuts, old pit areas or depressions, etc.), the Permittee shall collect at least one grab sample of the discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application each quarterly (three month) monitoring period if a discharge occurs at any time during the quarterly monitoring period which results from direct pumped drainage. Each sample collected shall be analyzed for each parameter specified in Part I.A. of this Permit.
- c. The Permittee may increase the frequency of sampling listed in Parts I.C.1.a and I.C.1.b; however, all sampling results must be reported to the Department and included in any calculated results submitted to the Department in accordance with this Permit.

2. Measurement Frequency

Measurement frequency requirements found in Part I.A. shall mean:

- a. A measurement frequency of one day per week shall mean sample collection on any day of discharge which occurs every calendar week.
- b. A measurement frequency of two days per month shall mean sample collection on any day of discharge which occurs every other week, but need not exceed two sample days per month.
- c. A measurement frequency of one day per month shall mean sample collection on any day of discharge which occurs during each calendar month.
- d. A measurement frequency of one day per quarter shall mean sample collection on any day of discharge which occurs during each calendar quarter.
- e. A measurement frequency of one day per six months shall mean sample collection on any day of discharge which occurs during the period of January through June and during the period of July through December.
- f. A measurement frequency of one day per year shall mean sample collection on any day of discharge which occurs during each calendar year.

3. Monitoring Schedule

The Permittee shall conduct the monitoring required by Part I.A. in accordance with the following schedule:

- a. MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this Permit and every month thereafter. More frequently than monthly and monthly monitoring may be done anytime during the month, unless restricted elsewhere in this Permit, but the results should be reported on the last Discharge Monitoring Report (DMR) due for the quarter (i.e., with the March, June, September, and December DMRs).
- b. QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The Permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this Permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this

Permit, but the results should be reported on the last DMR due for the quarter (i.e., with the March, June, September, and December DMRs).

- c. SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The Permittee shall conduct the semiannual monitoring during the first complete semiannual calendar period following the effective date of this Permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this Permit, but it should be reported on the last DMR due for the month of the semiannual period (i.e., with the June and December DMRs).
- d. ANNUAL MONITORING shall be conducted at least once during the period of January through December. The Permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this Permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this Permit, but it should be reported on the December DMR.

4. Sampling Location

Unless restricted elsewhere in this Permit, samples collected to comply with the monitoring requirements specified in Part I.A. shall be collected at the nearest accessible location just prior to discharge and after final treatment, or at an alternate location approved in writing by the Department.

5. Representative Sampling

Sample collection and measurement actions taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this Permit.

6. Test Procedures

For the purpose of reporting and compliance, Permittees shall use one of the following procedures:

- a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136, guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h), and ADEM Standard Operating Procedures. If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this Permit the Permittee shall use the newly approved method.
- b. For pollutant parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the Permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

- c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures identified in Parts I.C.6.a. and b. shall be reported on the Permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

7. Recording of Results

For each measurement or sample taken pursuant to the requirements of this Permit, the Permittee shall record the following information:

- a. The facility name and location, point source number, date, time, and exact place of sampling or measurements;
- b. The name(s) of person(s) who obtained the samples or measurements;
- c. The dates and times the analyses were performed;
- d. The name(s) of the person(s) who performed the analyses;
- e. The analytical techniques or methods used including source of method and method number; and
- f. The results of all required analyses.

8. Routine Inspection by Permittee

- a. The Permittee shall inspect all point sources identified on Page 1 of this Permit and described more fully in the Permittee's application and all treatment or control facilities or systems used by the Permittee to achieve compliance with the terms and conditions of this Permit at least as often as the applicable sampling frequency specified in Part I.C.1 of this Permit.
- b. The Permittee shall maintain a written log for each point source identified on Page 1 of this Permit and described more fully in the Permittee's application in which the Permittee shall record the following information:
 - (1) The date and time the point source and any associated treatment or control facilities or systems were inspected by the Permittee;
 - (2) Whether there was a discharge from the point source at the time of inspection by the Permittee;
 - (3) Whether a sample of the discharge from the point source was collected at the time of inspection by the Permittee;

- (4) Whether all associated treatment or control facilities or systems appeared to be in good working order and operating as efficiently as possible, and if not, a description of the problems or deficiencies; and
- (5) The name and signature of the person performing the inspection of the point source and associated treatment or control facilities or systems.

9. Records Retention and Production

- a. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the above reports or the application for this Permit, for a period of at least three (3) years from the date of the sample collection, measurement, report, or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA, AEMA, and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director, the Permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records should not be submitted unless requested.
- b. All records required to be kept for a period of three (3) years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

10. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this Permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The Permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

D. DISCHARGE REPORTING REQUIREMENTS

1. Requirements for Reporting of Monitoring

- a. Monitoring results obtained during the previous three (3) months shall be summarized for each month on a Discharge Monitoring Report (DMR) Form approved by the Department, and submitted to the Department so that it is received by the Director no later than the 28th day of the month following the quarterly reporting period (i.e., on the 28th day of January, April, July, and October of each year).
- b. The Department utilizes a web-based electronic reporting system for submittal of DMRs. **Except as allowed by Part I.D.1.c. or d., the Permittee shall submit all DMRs required by Part I.D.1.a. by utilizing the Department's current electronic reporting system.** The Department's current reporting system, Alabama Environmental Permitting and Compliance System (AEPACS), can be found online at <https://aepacs.adem.alabama.gov/nviro/ncore/external/home>.
- c. If the electronic reporting system is down (i.e. electronic submittal of DMR data is unable to be completed due to technical problems originating with the Department's system; this could include entry/submittal issues with an entire set of DMRs or individual parameters), permittees are not relieved of their obligation to submit DMR data to the Department by

the required submittal date. However, if the electronic reporting system is down on the 28th day of the month or is down for an extended period of time as determined by the Department when a DMR is required to be submitted, the facility may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within five calendar days of the electronic reporting system resuming operation, the Permittee shall enter the data into the reporting system unless an alternate timeframe is approved by the Department. An attachment should be included with the electronic DMR submittal verifying the original submittal date (date of the fax, copy of dated e-mail, or hand-delivery stamped date).

- d. The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable. Permittees with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The Permittee shall submit the Department-approved DMR forms to the address listed in Part I.D.1.j.
- e. If the Permittee, using approved analytical methods as specified in Part I.C.6., monitors any discharge from a point source identified on Page 1 of this Permit and describe more fully in the Permittee's application more frequently than required by this Permit; the results of such monitoring shall be included in the calculation and reporting of values on the DMR Form, and the increased frequency shall be indicated on the DMR Form.
- f. In the event no discharge from a point source identified on Page 1 of this Permit and described more fully in the Permittee's application occurs during a monitoring period, the Permittee shall report "No Discharge" for such period on the appropriate DMR Form.
- g. Each DMR Form submitted by the Permittee to the Department in accordance with Part I.D.1. must be legible and bear an original signature or electronic signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this Permit.
- h. All reports and forms required to be submitted by this Permit, the AWPCA, and the Department's rules and regulations, shall be signed by a "responsible official" of the Permittee as defined in ADEM Admin. Code r. 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Admin. Code r. 335-6-6-.09 and shall bear the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
- i. All DMRs, reports, and forms required to be submitted by this Permit, the AWPCA and the Department's rules and regulations, shall be submitted through the Department's electronic reporting system, AEPACS, or, if in hardcopy, shall be addressed to:

Alabama Department of Environmental Management
Water Division, Mining and Natural Resource Section
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management
Water Division, Mining and Natural Resource Section
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2059

- j. Unless authorized in writing by the Department, approved reporting forms required by this Permit or the Department are not to be altered, and if copied or reproduced, must be consistent in format and identical in content to the ADEM approved form. Unauthorized alteration, falsification, or use of incorrectly reproduced forms constitutes noncompliance with the requirements of this Permit and may significantly delay processing of any request, result in denial of the request, result in permit termination, revocation, suspension, modification, or denial of a permit renewal application, or result in other enforcement action.
- k. If this Permit is a reissuance, then the Permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.D.1.

2. Noncompliance Notification

- a. The Permittee must notify the Department if, for any reason, the Permittee's discharge:
 - (1) Potentially threatens human health or welfare;
 - (2) Potentially threatens fish or aquatic life;
 - (3) Causes an in-stream water quality criterion to be exceeded;
 - (4) Does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. §1317(a);
 - (5) Contains a quantity of a hazardous substance which has been determined may be harmful to the public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. §1321(b)(4); or
 - (6) Exceeds any discharge limitation for an effluent parameter as a result of an unanticipated bypass or upset.

The Permittee shall orally or electronically report any of the above occurrences, describing the circumstances and potential effects of such discharge to the Director within 24-hours after the Permittee becomes aware of the occurrence of such discharge. In addition to the oral or electronic report, the Permittee shall submit to the Director a written report as provided in Part I.D.2.c., no later than five (5) days after becoming aware of the occurrence of such discharge.

- b. If for any reason, the Permittee's discharge does not comply with any limitation of this Permit, the Permittee shall submit a written report to the Director as provided in Part I.D.2.c. This report must be submitted with the next Discharge Monitoring Report required

to be submitted by Part I.D.1. of this Permit after becoming aware of the occurrence of such noncompliance.

- c. Any written report required to be submitted to the Director in accordance with Parts I.D.2.a. and b. shall be submitted using a Noncompliance Notification Form (ADEM Form 421) available on the Department's website (<http://adem.alabama.gov/DeptForms/Form421.pdf>) and include the following information:

- (1) A description of the discharge and cause of noncompliance;
- (2) The period of noncompliance, including exact dates and times, or if not corrected, the anticipated time the noncompliance is expected to continue; and
- (3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

3. Reduction, Suspension, or Termination of Monitoring and/or Reporting

- a. The Director may, with respect to any point source identified on Page 1 of this Permit and described more fully in the Permittee's application, authorize the Permittee to reduce, suspend, or terminate the monitoring and/or reporting required by this Permit upon the submission of a written request for such reduction, suspension, or termination by the Permittee provided:

- (1) All mining, processing, or disturbance in the drainage basin(s) associated with the discharge has ceased and site access is adequately restricted or controlled to preclude unpermitted and unauthorized mining, processing, transportation, or associated operations/activity;
- (2) Permanent, perennial vegetation has been re-established on all areas mined or disturbed for at least one year since mining has ceased in the drainage basin(s) associated with the surface discharge, or all areas have been permanently graded such that all drainage is directed back into the mined pit to preclude all surface discharges;
- (3) Unless waived in writing by the Department, the Permittee has been granted, in writing, a 100% Bond Release, if applicable, by the Alabama Department of Industrial Relations and, if applicable, by the Surface Mining Commission for all areas mined or disturbed in the drainage basin(s) associated with the discharge;
- (4) Unless waived in writing by the Department, the Permittee has submitted inspection reports prepared and certified by a Professional Engineer (PE) registered in the State of Alabama or a qualified professional under the PE's direction which certify that the facility has been fully reclaimed or that water quality remediation has been achieved. The first inspection must be conducted approximately one year prior to and the second inspection must be conducted within thirty days of the Permittee's request for termination of monitoring and reporting requirements;
- (5) All surface effects of the mining activity such as fuel or chemical tanks, preparation plants or equipment, old tools or equipment, junk or debris, etc., must be removed and disposed of according to applicable state and federal regulations;
- (6) The Permittee's request for termination of monitoring and reporting requirements contained in this Permit has been supported by monitoring data covering a period

of at least six consecutive months or such longer period as is necessary to assure that the data reflect discharges occurring during varying seasonal climatological conditions;

- (7) The Permittee has stated in its request that the samples collected and reported in the monitoring data submitted in support of the Permittee's request for monitoring termination or suspension are representative of the discharge and were collected in accordance with all Permit terms and conditions respecting sampling times (e.g., rainfall events) and methods and were analyzed in accordance with all Permit terms and conditions respecting analytical methods and procedures;
 - (8) The Permittee has certified that during the entire period covered by the monitoring data submitted, no chemical treatment of the discharge was provided;
 - (9) The Permittee's request has included the certification required by Part I.D.1.e. of this Permit; and
 - (10) The Permittee has certified to the Director in writing as part of the request, its compliance with (1) through (9) above.
- b. It remains the responsibility of the Permittee to comply with the monitoring and reporting requirements of this Permit until written authorization to reduce, suspend, or terminate such monitoring and/or reporting is received by the Permittee from the Director.

E. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The Permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The Permittee shall notify the Director, in writing, when all discharges from any point source(s) identified on Page 1 of this Permit and described more fully in the Permittee's application have permanently ceased.

3. Updating Information

- a. The Permittee shall inform the Director of any change in the Permittee's mailing address or telephone number or in the Permittee's designation of a facility contact or officer(s) having the authority and responsibility to prevent and abate violations of the AWPCA, the AEMA, the Department's rules and regulations, and the terms and conditions of this Permit, in writing, no later than ten (10) days after such change. Upon request of the Director, the Permittee shall furnish the Director with an update of any information provided in the permit application.
- b. If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

- a. The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, suspending, terminating, or revoking and reissuing this Permit, in whole or in part, or to determine compliance with this Permit. The Permittee shall also furnish to the Director upon request, copies of records required to be maintained by this Permit.
- b. The Permittee shall furnish to the Director upon request, within a reasonable time, available information (name, phone number, address, and site location) which identifies offsite sources of material or natural resources (mineral, ore, or other material such as iron, coal, coke, dirt, chert, shale, clay, sand, gravel, bauxite, rock, stone, etc.) used in its operation or stored at the facility.

F. SCHEDULE OF COMPLIANCE

The Permittee shall achieve compliance with the discharge limitations specified in Part I.A. of this Permit in accordance with the following schedule:

Compliance must be achieved by the effective date of this Permit.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Management

The Permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of this Permit.

2. Pollution Abatement and/or Prevention Plan

a. The Pollution Abatement and/or Prevention (PAP) Plan shall be prepared and certified by a registered PE licensed to practice in the State of Alabama, and shall include, at a minimum:

- (1) The information indicated in ADEM Admin. Code ch. 335-6-9 and its Appendices A and B;
- (2) A description of methods which will be implemented to prevent offsite vehicle tracking onto roadways and/or into ditches at the entrances and/or exits of the Permittee's operations;
- (3) A description of setbacks from waters of the State in units of linear feet on the horizontal plane; a description of the methods taken to visibly delineate setbacks from waters of the State; and a description of any other actions taken to prevent encroachment upon setbacks;
- (4) A description of the methods used to delineate the boundaries of coverage under this Permit such that the boundaries are readily visible during the life of the operation;
- (5) A description of any other Best Management Practices (BMPs) which will be implemented to provide control of all nonpoint source pollution that is or may be associated with the Permittee's operations;

b. The PAP Plan shall become a part of this Permit and all requirements of the PAP Plan shall become requirements of this Permit pursuant to ADEM Admin Code r. 335-6-9-.05(2). The PAP Plan shall be amended if the Department determines that the existing sediment control measures, erosion control measures, or other site management practices are ineffective or do not meet the requirements of this Permit.

c. For existing sources, the PAP Plan shall be updated to include all requirements of this section within 180 days of the effective date of this permit. New sources shall submit the PAP plan with the Notification of Intent (NOI) prior to coverage under this Permit.

3. Best Management Practices (BMPs)

a. Unless otherwise authorized in writing by the Director, the Permittee shall provide a means of subsurface withdrawal for any discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application. Notwithstanding the above provision, a means of subsurface withdrawal need not be provided for any discharge caused by a 24-hour precipitation event greater than a 10-year, 24-hour precipitation event.

- b. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director has granted prior written authorization for dilution to meet water quality requirements.
- c. The Permittee shall minimize the contact of water with overburden, including but not limited to stabilizing disturbed areas through grading, diverting runoff, achieving quick growing stands of temporary vegetation, sealing acid-forming and toxic-forming materials, and maximizing placement of waste materials in back-fill areas.
- d. The Permittee shall prepare, submit to the Department for approval, and implement a Best Management Practices (BMPs) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a potential for discharge, if so required by the Director. When submitted and approved, the BMP Plan shall become a part of this Permit and all requirements of the BMP Plan shall become requirements of this Permit.
- e. Spill Prevention, Control, and Management

The Permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan acceptable to the Department that is prepared and certified by a Professional Engineer (PE), registered in the State of Alabama, for all onsite petroleum product or other pollutant storage tanks or containers as provided by ADEM Admin. Code r. 335-6-6-.08(j)5. The Plan shall describe and the Permittee shall implement appropriate structural and/or non-structural spill prevention, control, and/or management pursuant to ADEM Admin. Code r. 335-6-6-.12 (r) sufficient to prevent any spills of pollutants from entering a ground or surface water of the State or a publicly or privately owned treatment works. The Plan shall include at a minimum, the engineering requirements provided in 40 C.F.R. §§112.1. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. Such containment systems shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided. The Plan shall list any materials which the Permittee may utilize to contain and to absorb fuel and chemical spills and leaks. The Permittee shall maintain sufficient amounts of such materials onsite or have sufficient amounts of such materials readily available to contain and/or absorb fuel and chemical spills and leaks. Soil contaminated by chemical spills, oil spills, etc., must be immediately cleaned up or be removed and disposed of in a manner consistent with all State and federal regulations.

- f. All surface drainage and storm water runoff which originate within or enters the Permittee's premises and which contains any pollutants or other wastes shall be discharged, if at all, from a point source identified on Page 1 of this Permit and described more fully in the Permittee's application.
- g. The Permittee shall take all reasonable precautions to prevent any surface drainage or storm water runoff which originates outside the Permittee's premises and which contains any pollutants or other wastes from entering the Permittee's premises. At no time shall the Permittee discharge any such surface drainage or storm water runoff which enters the Permittee's premises if, either alone or in combination with the Permittee's effluent, the discharge would exceed any applicable discharge limitation specified in Part I.A. of this Permit.

4. Biocide Additives

- a. The Permittee shall notify the Director in writing not later than sixty (60) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in any cooling or boiler system(s) regulated by this Permit. Notification is not required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit

toxicity as determined by analysis of manufacturer's data or testing by the Permittee. Such notification shall include:

- (a) Name and general composition of biocide or chemical;
 - (b) 96-hour median tolerance limit data for organisms representative of the biota of the water(s) which the discharge(s) enter(s);
 - (c) Quantities to be used;
 - (d) Frequencies of use;
 - (e) Proposed discharge concentrations; and
 - (f) EPA registration number, if applicable.
- b. The use of any biocide or chemical additive containing tributyl tin, tributyl tin oxide, zinc, chromium, or related compounds in any cooling or boiler system(s) regulated by the Permit is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this Permit or in the application for this Permit or not exempted from notification under this Permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

5. Facility Identification

The Permittee shall clearly display prior to commencement of any regulated activity and until permit coverage is properly terminated, the name of the Permittee, entire NPDES permit number, facility or site name, and other descriptive information deemed appropriate by the Permittee at an easily accessible location(s) to adequately identify the site, unless approved otherwise in writing by the Department. The Permittee shall repair or replace the sign(s) as necessary upon becoming aware that the identification is missing or is unreadable due to age, vandalism, theft, weather, or other reason.

6. Removed Substances

Solids, sludges, filter backwash, or any other pollutants or other wastes removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department rules and regulations.

7. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facility, including but not limited to the loss or failure of the primary source of power of the treatment facility, the Permittee shall, where necessary to maintain compliance with the discharge limitations specified in Part I.A. of this Permit or any other terms or conditions of this Permit, cease, reduce, or otherwise control production and/or discharges until treatment is restored.

8. Duty to Mitigate

The Permittee shall promptly take all reasonable steps to minimize or prevent any violation of this Permit or to mitigate and minimize any adverse impact to waters resulting from noncompliance with any discharge limitation specified in Part I.A. of this Permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as is necessary to determine the nature and impact of the noncomplying discharge.

B. BYPASS AND UPSET

1. Bypass

- a. Any bypass is prohibited except as provided in Parts II.B.1.b. and c.
- b. A bypass is not prohibited if:
 - (1) It does not cause any applicable discharge limitation specified in Part I.A. of this Permit to be exceeded;
 - (2) The discharge resulting from such bypass enters the same receiving water as the discharge from the permitted outfall;
 - (3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system; and
 - (4) The Permittee monitors the discharge resulting from such bypass at a frequency, at least daily, sufficient to prove compliance with the discharge limitations specified in Part I.A. of this Permit.
- c. A bypass is not prohibited and need not meet the discharge limitations specified in Part I.A. of this Permit if:
 - (1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the Permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The Permittee submits a written request for authorization to bypass to the Director at least ten (10) days, if possible, prior to the anticipated bypass or within 24 hours of an unanticipated bypass, the Permittee is granted such authorization, and Permittee complies with any conditions imposed by the Director to minimize any adverse impact to waters resulting from the bypass.
- d. The Permittee has the burden of establishing that each of the conditions of Parts II.B.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in Part II.B.1.a. and an exemption, where applicable, from the discharge limitations specified in Part I.A. of this Permit.

2. Upset

- a. The Permittee may seek to demonstrate that noncompliance with technology-based effluent limits occurred as a result of an upset if the conditions of Part II.B.2.b are met and if the Permittee complies with the conditions provided in Part II.B.2.c:
 - (1) No later than 24-hours after becoming aware of the occurrence of the upset, the Permittee orally reports the occurrence and circumstances of the upset to the Director; and
 - (2) No later than five (5) days after becoming aware of the occurrence of the upset, the Permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, design drawings, construction certification, maintenance records, weir flow measurements, dated photographs, rain gauge measurements, or other relevant evidence, demonstrating that:
 - (i) An upset occurred;
 - (ii) The Permittee can identify the specific cause(s) of the upset;
 - (iii) The Permittee's treatment facility was being properly operated at the time of the upset; and
 - (iv) The Permittee promptly took all reasonable steps to minimize any adverse impact to waters resulting from the upset.
- b. Notwithstanding the provisions of Part II.B.2.a., a discharge which is an overflow from a treatment facility or system, or an excess discharge from a point source associated with a treatment facility or system and which results from a 24-hour precipitation event larger than a 10-year, 24-hour precipitation event is not exempted from the discharge limitations specified in Part I.A. of this Permit unless:
 - (1) The treatment facility or system is designed, constructed, and maintained to contain the maximum volume of wastewater which would be generated by the facility during a 24-hour period without an increase in volume from precipitation and the maximum volume of wastewater resulting from a 10-year, 24-hour precipitation event or to treat the maximum flow associated with these volumes.

In computing the maximum volume of wastewater which would result from a 10-year, 24-hour precipitation event, the volume which would result from all areas contributing runoff to the individual treatment facility must be included (i.e., all runoff that is not diverted from the mining area and runoff which is not diverted from the preparation plant area); and
 - (2) The Permittee takes all reasonable steps to maintain treatment of the wastewater and minimize the amount of overflow or excess discharge.
- c. The Permittee has the burden of establishing that each of the conditions of Parts II.B.2.a. and b. have been met to qualify for an exemption from the discharge limitations specified in Part I.A. of this Permit.

C. PERMIT CONDITIONS AND RESTRICTIONS

1. Prohibition against Discharge from Facilities Not Certified

- a. Notwithstanding any other provisions of this Permit, if the permitted facility has not obtained or is not required to obtain a permit from the Alabama Surface Mining Commission, any discharge(s) from any point or nonpoint source(s) from the permitted facility which was not certified to the Department on a form approved by the Department by a professional engineer, registered in the State of Alabama, as being designed, constructed, and in accordance with plans and specifications reviewed by the Department is prohibited; or
- b. Notwithstanding any other provisions of this Permit, if the permitted facility has obtained or is required to obtain a permit from the Alabama Surface Mining Commission, any discharge(s) from any point or nonpoint source(s) from the permitted facility which is associated with a treatment facility which was not constructed and certified to the Alabama Surface Mining Commission pursuant to applicable provisions of said Commission's regulations, is prohibited until the Permittee submits to the Alabama Surface Mining Commission, certification by a professional engineer, registered in the State of Alabama, certifying that such facility has been constructed in accordance with plans and specifications approved by the Alabama Surface Mining Commission. This requirement shall not apply to pumped discharges from the underground works of underground coal mines where no surface structure is required by the Alabama Surface Mining Commission, provided the Department is notified in writing of the completion or installation of such facilities, and the pumped discharges will meet permit effluent limits without treatment.

2. Permit Modification, Suspension, Termination, and Revocation

- a. This Permit may be modified, suspended, terminated, or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:
 - (1) The violation of any term or condition of this Permit;
 - (2) The obtaining of this Permit by misrepresentation or the failure to disclose fully all relevant facts;
 - (3) The submission of materially false or inaccurate statements or information in the permit application or reports required by the Permit;
 - (4) The need for a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
 - (5) The existence of any typographical or clerical errors or of any errors in the calculation of discharge limitations;
 - (6) The existence of material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;
 - (7) The threat of the Permittee's discharge on human health or welfare; or
 - (8) Any other cause allowed by ADEM Admin. Code ch. 335-6-6.

- b. The filing of a request by the Permittee for modification, suspension, termination, or revocation and reissuance of this Permit, in whole or in part, does not stay any Permit term or condition of this Permit.

3. Automatic Expiration of Permits for New or Increased Discharges

- a. Except as provided by ADEM Admin. Code r. 335-6-6-.02(h) and 335-6-6-.05, if this Permit was issued for a new discharger or new source, it shall expire eighteen months after the issuance date if construction has not begun during that eighteen month period.
- b. Except as provided by ADEM Admin. Code r. 335-6-6-.02(h) and 335-6-6-.05, if any portion of this Permit was issued or modified to authorize the discharge of increased quantities of pollutants to accommodate the modification of an existing facility, that portion of this Permit shall expire eighteen months after this Permit's issuance if construction of the modification has not begun within eighteen month period.
- c. Construction has begun when the owner or operator has:
 - (1) Begun, or caused to begin as part of a continuous on-site construction program:
 - (i) Any placement, assembly, or installation of facilities or equipment; or
 - (ii) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or
 - (2) Entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.
- d. The automatic expiration of this Permit for new or increased discharges if construction has not begun within the eighteen month period after the issuance of this Permit may be tolled by administrative or judicial stay.

4. Transfer of Permit

This Permit may not be transferred or the name of the Permittee changed without notice to the Director and subsequent modification or revocation and reissuance of this Permit to identify the new Permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership, or control of the Permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership, or control of the Permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership, or control, he may decide not to modify the existing Permit and require the submission of a new permit application.

5. Groundwater

Unless authorized on page 1 of this Permit, this Permit does not authorize any discharge to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

6. Property and Other Rights

This Permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of Federal, State, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the State or of the United States.

D. RESPONSIBILITIES

1. Duty to Comply

- a. The Permittee must comply with all terms and conditions of this Permit. Any permit noncompliance constitutes a violation of the AWPCA, AEMA, and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification, or denial of a permit renewal application.
- b. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the FWPCA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the effluent standard, prohibition or requirement.
- c. For any violation(s) of this Permit, the Permittee is subject to a civil penalty as authorized by the AWPCA, the AEMA, the FWPCA, and Code of Alabama 1975, §§22-22A-1 et. seq., as amended, and/or a criminal penalty as authorized by Code of Alabama 1975, §22-22-1 et. seq., as amended.
- d. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of this Permit shall not be a defense for a Permittee in an enforcement action.
- e. Nothing in this Permit shall be construed to preclude or negate the Permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, federal, state, or local government permits, certifications, licenses, or other approvals.
- f. The discharge of a pollutant from a source not specifically identified in the permit application for this Permit and not specifically included in the description of an outfall in this Permit is not authorized and shall constitute noncompliance with this Permit.
- g. The Permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this Permit or to minimize or prevent any adverse impact of any permit violation.

2. Change in Discharge

- a. The Permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants, increase the quantity of a discharged pollutant, or

that could result in an additional discharge point. This requirement also applies to pollutants that are not subject to discharge limitations in this Permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.

- b. The Permittee shall notify the Director as soon as it knows or has reason to believe that it has begun or expects to begin to discharge any pollutant listed as a toxic pollutant pursuant to Section 307(a) of the FWPCA, 33 U.S.C. §1317(a), any substance designated as a hazardous substance pursuant to Section 311(b)(2) of the FWPCA, 33 U.S.C. §1321(b)(2), any waste listed as a hazardous waste pursuant to Code of Alabama 1975, §22-30-10, or any other pollutants or other wastes which is not subject to any discharge limitations specified in Part I.A. of this Permit and was not reported in the Permittee's application, was reported in the Permittee's application in concentrations or mass rates lower than that which the Permittee expects to begin to be discharged, or has reason to believe has begun to be discharged.

3. Compliance with Toxic or Other Pollutant Effluent Standard or Prohibition

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Sections 301(b)(2)(C),(D),(E) and (F) of the FWPCA, 33 U.S.C. §1311(b)(2)(C),(D),(E), and (F); 304(b)(2) of the FWPCA, 33 U.S.C. §1314(b)(2); or 307(a) of the FWPCA, 33 U.S.C. §1317(a), for a toxic or other pollutant discharged by the Permittee, and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Part I.A. of this Permit or controls a pollutant not limited in Part I.A. of this Permit, this Permit shall be modified to conform to the toxic or other pollutant effluent standard or prohibition and the Permittee shall be notified of such modification. If this Permit has not been modified to conform to the toxic or other pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the authorization to discharge in this Permit shall be void to the extent that any discharge limitation on such pollutant in Part I.A. of this Permit exceeds or is inconsistent with the established toxic or other pollutant effluent standard or prohibition.

4. Compliance with Water Quality Standards and Other Provisions

- a. On the basis of the Permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this Permit will assure compliance with applicable water quality standards. However, this Permit does not relieve the Permittee from compliance with applicable State water quality standards established in ADEM Admin. Code ch. 335-6-10, and does not preclude the Department from taking action as appropriate to address the potential for contravention of applicable State water quality standards which could result from discharges of pollutants from the permitted facility.
- b. Compliance with Permit terms and conditions notwithstanding, if the Permittee's discharge(s) from point source(s) identified on Page 1 of this Permit cause(s) or contribute(s) to a condition in contravention of State water quality standards, the Department may require abatement action to be taken by the Permittee, modify the Permit pursuant to the Department's rules and regulations, or both.
- c. If the Department determines, on the basis of a notice provided pursuant to Part II.C.2. of this Permit or any investigation, inspection, or sampling, that a modification of this Permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the noticed act until the Permit has been modified.

5. Compliance with Statutes and Rules

- a. This Permit has been issued under ADEM Admin. Code div. 335-6. All provisions of this division, that are applicable to this Permit, are hereby made a part of this Permit. A copy of this division may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36110-2059.
- b. This Permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

6. Right of Entry and Inspection

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the 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; and
- d. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

7. Duty to Reapply or Notify of Intent to Cease Discharge

- a. If the Permittee intends to continue to discharge beyond the expiration date of this Permit, the Permittee shall file with the Department a complete permit application for reissuance of this Permit at least 180 days prior to its expiration.
- b. If the Permittee does not desire to continue the discharge(s) allowed by this Permit, the Permittee shall notify the Department at least 180 days prior to expiration of this Permit of the Permittee's intention not to request reissuance of this Permit. This notification must include the information required in Part I.D.4.a. and be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Admin. Code r. 335-6-6-.09.
- c. Failure of the Permittee to submit to the Department a complete application for reissuance of this Permit at least 180 days prior to the expiration date of this Permit will void the automatic continuation of this Permit provided by ADEM Admin. Code r. 335-6-6-.06; and should this Permit not be reissued for any reason, any discharge after the expiration of this Permit will be an unpermitted discharge.

PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under this Permit shall, upon conviction, be subject to penalties and/or imprisonment as provided by the AWPCA and/or the AEMA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished as provided by applicable State and Federal law.

3. Permit Enforcement

This NPDES Permit is a Permit for the purpose of the AWPCA, the AEMA, and the FWPCA, and as such all terms, conditions, or limitations of this Permit are enforceable under State and Federal law.

4. Relief From Liability

Except as provided in Part II.B.1. (Bypass) and Part II.B.2. (Upset), nothing in this Permit shall be construed to relieve the Permittee of civil or criminal liability under the AWPCA, AEMA, or FWPCA for noncompliance with any term or condition of this Permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject to under Section 311 of the FWPCA, 33 U.S.C. §1321.

C. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, §22-22-9(c), all reports prepared in accordance with the terms of this Permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential. Knowingly making any false statement in any such report may result in the imposition of criminal penalties as provided for in Section 309 of the FWPCA, 33 U.S.C. §1319, and Code of Alabama 1975, §22-22-14.

D. DEFINITIONS

1. Alabama Environmental Management Act (AEMA) - means Code of Alabama 1975, §22-22A-1 et. seq., as amended.
2. Alabama Water Pollution Control Act (AWPCA) - means Code of Alabama 1975, §22-22-1 et. seq., as amended.
3. Average monthly discharge limitation - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar

month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

4. Arithmetic Mean - means the summation of the individual values of any set of values divided by the number of individual values.
5. BOD - means the five-day measure of the pollutant parameter biochemical oxygen demand
6. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.
7. CBOD - means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
8. Controlled Surface Mine Drainage – means any surface mine drainage that is pumped or siphoned from the active mining area.
9. Crushed stone mine - means an area on or beneath land which is mined, quarried, or otherwise disturbed in activity related to the extraction, removal, or recovery of stone from natural or artificial deposits, including active mining, reclamation, and mineral storage areas, for production of crushed stone.
10. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
11. Daily maximum - means the highest value of any individual sample result obtained during a day.
12. Daily minimum - means the lowest value of any individual sample result obtained during a day.
13. Day - means any consecutive 24-hour period.
14. Department - means the Alabama Department of Environmental Management.
15. Director - means the Director of the Department or his authorized representative or designee.
16. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other waste into waters of the state." Code of Alabama 1975, §22-22-1(b)(8).
17. Discharge monitoring report (DMR) - means the form approved by the Director to accomplish monitoring report requirements of an NPDES Permit.
18. DO - means dissolved oxygen.
19. E. coli – means the pollutant parameter *Escherichia coli*.
20. 8HC - means 8-hour composite sample, including any of the following:
 - a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

- b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
- 21. EPA - means the United States Environmental Protection Agency.
 - 22. Federal Water Pollution Control Act (FWPCA) - means 33 U.S.C. §§1251 et. seq., as amended.
 - 23. Flow – means the total volume of discharge in a 24-hour period.
 - 24. Geometric Mean - means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).
 - 25. Grab Sample - means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.
 - 26. Indirect Discharger - means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
 - 27. Industrial User - means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.
 - 28. mg/L - means milligrams per liter of discharge.
 - 29. MGD - means million gallons per day.
 - 30. Monthly Average - means, other than for E. coli bacteria, the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for E. coli bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period. (Zero discharges shall not be included in the calculation of monthly averages.)
 - 31. New Discharger - means a person owning or operating any building, structure, facility or installation:
 - a. From which there is or may be a discharge of pollutants;
 - b. From which the discharge of pollutants did not commence prior to August 13, 1979, and which is not a new source; and
 - c. Which has never received a final effective NPDES Permit for dischargers at that site.
 - 32. New Source - means:
 - a. A new source as defined for coal mines by 40 CFR Part 434.11 (1994); and
 - b. Any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
 - (1) After promulgation of standards of performance under Section 306 of FWPCA which are applicable to such source; or

- (2) After proposal of standards of performance in accordance with Section 306 of the FWPCA which are applicable to such source, but only if the standards are promulgated in accordance with Section 206 within 120 days of their proposal.
33. NH₃-N - means the pollutant parameter ammonia, measured as nitrogen.
34. 1-year, 24-hour precipitation event - means the maximum 24-hour precipitation event with a probable recurrence interval of once in one year as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
35. Permit application - means forms and additional information that are required by ADEM Admin. Code r. 335-6-6-.08 and applicable permit fees.
36. Point Source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. §1362(14).
37. Pollutant - includes for purposes of this Permit, but is not limited to, those pollutants specified in Code of Alabama 1975, §22-22-1(b)(3) and those effluent characteristics, excluding flow, specified in Part I.A. of this Permit.
38. Pollutant of Concern - means those pollutants for which a water body is listed as impaired or which contribute to the listed impairment.
39. Pollution Abatement and/or Prevention Plan (PAP Plan) – mining operations plan developed to minimize impacts on water quality to avoid a contravention of the applicable water quality standards as defined in ADEM Admin. Code r. 335-6-9-.03
40. Preparation, Dry - means a dry preparation facility within which the mineral/material is cleaned, separated, or otherwise processed without use of water or chemical additives before it is shipped to the customer or otherwise utilized. A dry preparation plant includes all ancillary operations and structures necessary to clean, separate, or otherwise process the mineral/material, such as storage areas and loading facilities. Dry preparation also includes minor water spray(s) used solely for dust suppression on equipment and roads to minimize dust emissions.
41. Preparation, Wet - means a wet preparation facility within which the mineral/material is cleaned, separated, or otherwise processed using water or chemical additives before it is shipped to the customer or otherwise utilized. A wet preparation plant includes all ancillary operations and structures necessary to clean, separate, or otherwise process the mineral/material, such as storage areas and loading facilities. Wet preparation also includes mineral extraction/processing by dredging, slurry pumping, etc.
42. Privately Owned Treatment Works - means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".
43. Publicly Owned Treatment Works (POTW) - means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.
44. Receiving Stream - means the "waters" receiving a "discharge" from a "point source".
45. Severe property damage - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural

resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

46. 10-year, 24-hour precipitation event - means that amount of precipitation which occurs during the maximum 24-hour precipitation event with a probable recurrence interval of once in ten years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
47. TKN - means the pollutant parameter Total Kjeldahl Nitrogen.
48. TON - means the pollutant parameter Total Organic Nitrogen.
49. TRC - means Total Residual Chlorine.
50. TSS - means the pollutant parameter Total Suspended Solids
51. Treatment facility and treatment system - means all structures which contain, convey, and as necessary, chemically or physically treat mine and/or associated preparation plant drainage, which remove pollutants limited by this Permit from such drainage or wastewater. This includes all pipes, channels, ponds, tanks, and all other equipment serving such structures.
52. 24HC - means 24-hour composite sample, including any of the following:
 - a. The mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;
 - b. A sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or
 - c. A sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.
53. 24-hour precipitation event - means that amount of precipitation which occurs within any 24-hour period.
54. 2-year, 24-hour precipitation event - means the maximum 24-hour precipitation event with a probable recurrence interval of once in two years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
55. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate facilities, lack of preventive maintenance, or careless or improper operation.
56. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the State, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, §22-22-1(b)(2). "Waters" include all "navigable waters" as defined in §502(7) of the FWPCA, 33 U.S.C. §1362(7), which are within the State of Alabama.
57. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.

58. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

E. 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.

F. PROHIBITIONS AND ACTIVITIES NOT AUTHORIZED

1. Discharges from disposal or landfill activities as described in ADEM Admin. Code div. 335-13 are not authorized by this Permit unless specifically approved by the Department.
2. Relocation, diversion, or other alteration of a water of the State is not authorized by this Permit unless specifically approved by the Department.
3. Lime or cement manufacturing or production and discharge of process waters from such manufacturing or production is not authorized by this Permit unless specifically approved by the Department.
4. Concrete or asphalt manufacturing or production and discharge of process waters from such manufacturing or production is not authorized by this Permit unless specifically approved by the Department.
5. The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the Permittee or not identified in the application for this Permit or not identified specifically in the description of an outfall in this Permit is not authorized by this Permit.

G. DISCHARGES TO IMPAIRED WATERS

1. This Permit does not authorize new sources or new discharges of pollutants of concern to impaired waters unless consistent with an EPA-approved or EPA-established Total Maximum Daily Load (TMDL) and applicable State law, or unless compliance with the limitations and requirements of the Permit ensure that the discharge will not contribute to further degradation of the receiving stream. Impaired waters are those that do not meet applicable water quality standards and are identified on the State of Alabama's §303(d) list or on an EPA-approved or EPA-established TMDL. Pollutants of concern are those pollutants for which the receiving water is listed as impaired or contribute to the listed impairment.
2. Facilities that discharge into a receiving stream which is listed on the State of Alabama's §303(d) list of impaired waters, and with discharges that contain the pollutant(s) for which the waters are impaired, must within six (6) months of the Final §303(d) list approval, document in its BMP plan how the BMPs will control the discharge of the pollutant(s) of concern, and must ensure that there will be no increase of the pollutants of concern. A monitoring plan to assess the effectiveness of the BMPs in achieving the allocations must also be included in the BMP plan.

3. If the facility discharges to impaired waters as described above, it must determine whether a TMDL has been developed and approved or established by EPA for the listed waters. If a TMDL is approved or established during this Permit cycle by EPA for any waters into which the facility discharges, the facility must review the applicable TMDL to see if it includes requirements for control of any water discharged by the Permittee. Within six (6) months of the date of TMDL approval or establishment, the facility must notify the Department on how it will modify its BMP plan to include best management practices specifically targeted to achieve the allocations prescribed by the TMDL, if necessary. Any revised BMP plans must be submitted to the Department for review. The facility must include in the BMP plan a monitoring component to assess the effectiveness of the BMPs in achieving the allocations.

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION**

ANTIDEGRADATION RATIONALE

Company Name: Central Alabama Aggregates, LLC

Facility Name: Shorter Pit

County: Macon

Permit Number: AL0084458

Prepared by: Ange Boatwright

Date: July 17, 2026

Receiving Waters: Unnamed Tributaries to Calebee Creek, Unnamed tributaries to Cubahatchee Creek

Stream Category: Tier II as defined by ADEM Admin. Code 335-6-10-.12

Discharge Description: This proposed permit covers a wet preparation Dirt and/or Chert, Sand and Gravel mine, transportation and storage, and associated areas which discharge to surface waters.

The following preliminary determination was prepared in accordance with ADEM Admin. Code 335-6-10-.12 (7) (c):

The Department has reviewed the information submitted by applicant in accordance with ADEM Admin. Code 335-6-10-.12(9). The applicant has demonstrated that there are no technically or economically viable treatment options in its alternatives analysis that would completely eliminate a direct discharge.

The permit applicant has indicated that the following economic and social benefits will result from this project:

1. The Permittee expects to hire up to 3 employees and avoid the loss of 2 equipment operators and support staff if the permit is issued.
2. The Permittee expects to pay an estimated \$37,587 in state and local taxes with the issuance of the permit.
3. The Permittee submits that the mined material will be used for residential and commercial construction projects and be a contributor to indirect jobs in the local community.

The Department has determined that the discharge proposed by the permit applicant is necessary for important economic and social development in the area of the outfall location in the receiving water.

Reviewed By: William McClimans

Date: July 17, 2026

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION**

NPDES INDIVIDUAL PERMIT RATIONALE

Company Name: Central Alabama Aggregates, LLC

Facility Name: Shorter Pit

County: Macon County

Permit Number: AL0084458

Prepared by: Ange Boatwright

Date: July 17, 2026

Receiving Waters: Unnamed Tributaries to Cubahatchee Creek, Unnamed Tributaries to Calebee Creek, Groundwater

Permit Coverage: Dirt and/or Chert, Construction Sand and Gravel, Wet Preparation, Transportation and Storage, and Associated Areas

SIC Code(s): 1442, 1499

The Department has made a tentative determination that the available information is adequate to support the modification of this permit. The modification includes the expansion of the area covered by the proposed permit and the addition of Outfall 005-1.

This proposed permit covers a wet preparation dirt and/or chert, construction sand and gravel mine, and associated areas which discharge to ground and surface waters.

This proposed permit authorizes treated discharges into unnamed tributaries to Calebee Creek and unnamed tributaries to Cubahatchee Creek, which currently have the water quality classification of Fish and Wildlife (F&W) per ADEM Admin. Code Ch. 335-6-11. However, the discharges to the unnamed tributary to Cubahatchee Creek are within a 24-hour travel period to Cubahatchee Creek which is classified as Swimming and Other Whole Body Water-Contact Sports and Fish and Wildlife (S/F&W); therefore, the permit was prepared with consideration given to the higher use classification. If the requirements of the proposed permit are fully implemented, the facility will not discharge pollutants at levels that will cause or contribute to a violation of the S/F&W and F&W classifications.

Information included in the Permittee's application shows that the Permittee could potentially impact waters of the United States (U.S.) within the area covered by the Permit. Any impacts to waters of the U.S. must be appropriately permitted through the U.S. Army Corps of Engineers (USACE) before any impacts may occur. Any surface waters not covered under a USACE Permit must maintain the required 50 foot setbacks under ADEM Admin. Code r. 335-6-9-.07.

Full compliance with the proposed permit terms and conditions is expected to be protective of instream water quality and ensure consistency with applicable instream State water quality standards for the receiving stream.

Technology Based Effluent Limits (TBELs) for dirt and/or chert facilities have not yet been developed by the EPA.

Technology Based Effluent Limits (TBELs) for construction sand and gravel facilities can be found in 40 CFR 436.32(1) and (2) for facilities that recycle waste water for use in processing and mine dewatering, respectively. The TBELs were promulgated for existing dischargers using the Best Practicable Control Technology Available (BPT). New Source Performance Standards (NSPS) have not yet been developed by the EPA for the Construction Sand and Gravel Subcategory.

The TBELs for 40 CFR 436 Subpart C do not include limitations for Total Suspended Solids (TSS). TSS is classified as a conventional pollutant in 40 CFR 401.16 and is expected to be discharged from this type of facility. Therefore, monthly average and daily maximum effluent limitations for TSS were prepared using Best Professional Judgment (BPJ) with consideration given to the NSPS for TSS in 40 CFR 434.35.

The proposed permit covers discharges to Groundwater. Monitoring for discharges to groundwater is not required because of the natural treatment provided by the sand and gravel formation; however, discharges to surface waters must be monitored twice per month.

40 CFR 436.32 includes the TBEL of 6.0 – 9.0 s.u. for pH. However, the applicable State water quality criteria for pH in streams classified as S/F&W and F&W is 6.0 – 8.5 s.u. per ADEM Admin. Code r. 335-6-10-.09. However, information provided in the Permittee's application shows that the discharges from all Outfalls may occur during low flow conditions in the receiving stream when the discharge/stream flow ratio may be high. Therefore, due to the lack of adequate background dilution from the receiving stream during low flow conditions, the daily maximum pH limitation at 8.5 s.u. is used in this permit. Furthermore, under no circumstances may the discharge from any outfall cause the in-stream pH to deviate more than 1.0 s.u. from the normal or natural pH, nor be less than 6.0 s.u. nor greater than 8.5 s.u.

The applicant has requested, in accordance with 40 CFR Part 122.21 and their NPDES permit application, a waiver from testing for the Part A, B, and C pollutants listed in the EPA Form 2C and 2D that are not addressed in their application. They have also certified that due to the processes involved in their mining activity these pollutants are believed to be not present in the waste stream.

The Pollution Abatement/Prevention (PAP) plan for this facility has been prepared by a professional engineer (PE) registered in the State of Alabama and is designed to ensure reduction of pollutants in the waste stream to a level that, if operated properly, the discharge will not contribute to or cause a violation of applicable State water quality standards. The proposed permit terms and conditions are predicated on the basis of ensuring a reduction of pollutants in the discharge to a level that reduces the potential of contributing to or causing a violation of applicable State water quality standards.

In accordance with ADEM Admin. Code r. 335-6-3-.07, the design professional engineer, as evidenced by their seal and/or signature on the application, has accepted full responsibility for the effectiveness of the waste treatment facility to treat the permittee's effluent to meet NPDES permit limitations and requirements, and to fully comply with Alabama's water quality standards, when such treatment facilities are properly operated.

If there is a reasonable potential that a pollutant present in the treated discharges from a facility could cause or contribute to a contravention of applicable State water quality standards above numeric or narrative criteria, 40 CFR Part 122 requires the Department to establish effluent limits using calculated water quality criterion, establish effluent limits on a case-by-case basis using criteria established by EPA, or establish effluent limits based on an indicator parameter. Based on available information, potential pollutants discharged from this facility, if discharged within the concentrations allowed by this permit, would not have a reasonable potential to cause or contribute to a contravention of applicable State water quality standards.

Pursuant to ADEM Admin. Code r. 335-6-6-.12(r) this permit requires the permittee to design and implement a Spill Prevention Control and Countermeasures (SPCC) plan for all stored chemicals, fuels and/or stored pollutants that have the potential to discharge to a water of the State. This plan must meet the minimum engineering requirements as defined in 40 CFR Part 112 and must provide for secondary containment adequate to control a potential spill.

The applicant is not proposing discharges of pollutants into a water of the State with an approved Total Maximum Daily Load (TMDL).

The applicant is not proposing discharges into a stream segment or other State water that is included on Alabama's current CWA §303(d) list.

The applicant is not proposing any new discharges of pollutants to an ADEM identified Tier I water.

The proposed permit action authorizes new discharges of pollutants to receiving waters determined by the Department to be waters where the quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water (Tier II). Pursuant to ADEM Admin. Code r. 335-6-10 (Antidegradation Policy and Implementation of the Antidegradation Policy), the applicant has submitted and the Department has reviewed and considered information regarding (1) demonstration of necessity/importance, (2) alternatives analysis, and (3) calculations of total annualized costs for technically feasible treatment alternatives regarding the proposed new discharges to Tier II waters. The Department has determined, based on the applicant's demonstration, that the proposed new discharges to the Tier II waters are necessary for important economic or social development in the area in which the waters are located.

NPDES Individual Permit - Modification/Reissuance - Mining (Form 315)

version 4.9

(Submission #: HQN-NMJM-EF8FZ, version 1)

Digitally signed by:
AEPACS
Date: 2026.05.22 16:59:55 -05:00
Reason: Submission Data
Location: State of Alabama

Details

Submission ID HQN-NMJM-EF8FZ

Form Input

General Instructions

NPDES Individual Application - Mining and Coalbed Methane Operations - Mod/Reissuance (Form 315/549)

PLEASE CONTACT YOUR ASSIGNED PERMIT CONTACT TO DISCUSS THE TYPE OF MODIFICATION YOU SHOULD APPLY FOR BEFORE COMPLETING THIS FORM.

This form should be used to submit the following permit requests for individually permitted Mining and Coalbed Methane Operations:

Modifications/Reissuances that include Permit Transfers and/or Permittee/Facility Name Changes

Minor Modifications

Major Modifications

Reissuances

Reissuance of a permit on or after the current permit's expiration date

Revocation and Reissuance before the current permit's expiration date

Please complete all questions and attach all necessary documentation as prompted throughout the application process. Incomplete or incorrect information will delay processing.

Applicable Fees:

Minor Modifications

\$3,400 (Mineral/Resource Extraction Mining, Storage Transloading, Dry Processing)

\$3,940 (Wet Preparation, Processing, Beneficiation)

\$3,940 (Coalbed Methane Operations)

Major Modifications

\$5,820 (Mineral/Resource Extraction Mining, Storage Transloading, Dry Processing)

\$6,860 (Wet Preparation, Processing, Beneficiation)

\$6,860 (Coalbed Methane Operations)

Reissuances

\$5,820 (Mineral/Resource Extraction Mining, Storage Transloading, Dry Processing)

\$6,860 (Wet Preparation, Processing, Beneficiation)

\$6,860 (Coalbed Methane Operations)

Potential Add-on Fees for Major Modifications and Reissuances

\$1,015 (Biomonitoring & Toxicity Limits)

\$2,705 (Review of Model Performed by Others)

\$4,855 (Modeling – desktop)

[For assistance, please click here to determine the permit staff responsible for the site or call \(334\) 394-4372.](#)

Processing Information

Purpose of Application

Major Modification

Please indicate if the Permittee is applying for a permit transfer and/or name change in addition to permit modification or reissuance:

None

Action Type

Major Modification

Brief description of the action/change that has resulted in the request for this permit modification:

Additional acreage and one additional outfall to be added to this permit.

Is this a coalbed methane operation?

No

Permit Information**Permit Number**

AL0084458

Current Permittee Name

Central Alabama Aggregates, LLC

Permittee**Permittee Name**

Central Alabama Aggregates, LLC

Mailing Address

2285 Zelda Road

Montgomery, AL 36106

Responsible Official**Prefix**

Mr.

First Name

Taylor

Last Name

Rice

Title

Member

Organization Name

Central Alabama Aggregates, LLC

Phone Type Number Extension

Business 334-717-1100

Email

taylor.slc@yahoo.com

Mailing Address

PO Box 640193

PIKE ROAD, AL 36064

Existing Permit Contacts

Affiliation Type	Contact Information	Remove?
Applicant, Permittee	Central Alabama Aggregates, LLC	NONE PROVIDED
Notification Recipient, Responsible Official, Facility Contact	Taylor Rice	NONE PROVIDED
Notification Recipient, Professional Engineer, Application Preparer	Phillip D. Davis, LaBella Associates D.P.C.	NONE PROVIDED

Facility/Operations Information**Facility/Operations Name**

Shorter Pit

Permittee Organization Type

LLC

Parent Corporation and Subsidiary Corporations of Applicant, if any:

NA

Landowner(s) Name, Address and Phone Number:

William & HD Segrest

Sub-contractor(s)/Operator(s), if known:

NA

Is the Company/Permittee properly registered and in good standing with the Alabama Secretary of State s office?

Yes

Facility/Operations Address or Location Description

US Hwy 80, east of I-85

I-85 exit 22. east on US 80 for 1.9 miles. Site is to the left (north).

Shorter, AL 36075

Facility/Operations County (Front Gate)

Macon

Do the operations span multiple counties?

No

Detailed Directions to the Facility/Operations

Proceed east on I-85N to Shorter, Alabama . Take Exit 22. Proceed east on US Hwy 80 for 1.9 miles from I-85. The site entrance is a gravel and dirt road on your left. Directly across US-80 from the site entrance is a paved road named Ashley Drive, a new cul de sac neighborhood for single family residences.

Please refer to the link below for Lat/Long map instruction help:

[Map Instruction Help](#)

Facility/Operations Front Gate Latitude and Longitude

32.39889000000000,-85.92623500000001

US Hwy 80, 1.9 mi east of I85, Shorter, AL

Township(s), Range(s), Section(s) (Note: If you are submitting multiple TRSs, please separate each TRS by a semicolon.

Example: T19S,R1E,S15; T20S,R2E,S16)

T16N, T17N, R21E, S34, S35, S2, S3

SIC Code(s) [Please select your primary SIC code first]:

1442-Construction Sand and Gravel

1499-Miscellaneous Nonmetallic Minerals Except Fuels

NAICS Code(s) [Please select your primary NAICS code first]:

212321-Construction Sand and Gravel Mining

212390-Other Nonmetallic Mineral Mining And Quarrying

Facility/Operations Contact**Prefix**

Mr.

First Name

Taylor

Last Name

Rice

Title

Member

Organization Name

Central Alabama Aggregates, LLC

Phone Type

Business

Number

3347171100

Extension**Email**

taylor.slc@yahoo.com

Member Information

Identify the name, title/position, and unless waived in writing by the Department, the resident address of every officer (a PO Box is not acceptable), general partner, LLP partner, LLC member, investor, director, or person performing a function similar to a director, of the applicant, and each person who is the record or beneficial owner of 10 percent or more of any class of voting stock of the applicant, or any other responsible official(s) of the applicant with legal or decision making responsibility or authority for the facility/operations (if this does not apply, then enter N/A after selecting "Manually Enter in Table"):

List of Names/Titles/Addresses will be entered by:

Manually Entering in Table

Name	Title/Position	Physical Address of Residence
J. Taylor Rice	Member	1671 Yarbrough Farms Boulevard Auburn, AL 36830
H. Franklin Thomas III	Member	2010 Myrtlewood Drive Montgomery, AL 36111
James Nicholas Sloan	Member	44 Lake Park Drive Pike Road, AL 36064

Other than the "Company/Permittee", identify the name of each corporation, partnership, association, and single proprietorship for which any individual identified above is or was an officer, general partner, LLP partner, LLC member, investor, director, or individual performing a function similar to a director, or principal (10% or more) stockholder, that had an Alabama NPDES permit at any time during the five year (60 month) period immediately preceding the date on which this form is signed (if this does not apply, then enter N/A after selecting "Manually Enter in Table"):

List of Corporations/Partnerships/etc, Names and Titles will be entered by:

Manually Entering in Table

Name of Corporation, Partnership, Association, or Single Proprietorship	Name of Individual	Title/Position in Corporation, Partnership, Association, or Single Proprietorship
Central Alabama Aggregates, LLC	Taylor Rice	Member

Additional Contacts (1 of 1)

ADDITIONAL CONTACTS:

Contact Type

NONE PROVIDED

Contact

First Name

NONE PROVIDED

Last Name

NONE PROVIDED

Title

NONE PROVIDED

Organization Name

NONE PROVIDED

Phone Type

Number

Extension

NONE PROVIDED

Email

NONE PROVIDED

Address

[NO STREET ADDRESS SPECIFIED]

[NO CITY SPECIFIED], AL [NO ZIP CODE SPECIFIED]

Compliance History

Has the applicant ever had any of the following:

Event	Apply?
An Alabama NPDES, SID, or UIC permit suspended or terminated	No
An Alabama or federal environmental permit suspended/terminated	No
An Alabama State Oil Gas Board permit or other approval suspended or terminated	No
An Alabama or federal performance/environmental bond, or similar security deposited in lieu of a bond, or portion thereof, forfeited	No

Has the applicant, parent corporation, subsidiary, general partner, LLP partner, or LLC Member had any Warning Letters, Notice of Violations (NOVs), Administrative Actions, or litigation filed by ADEM or EPA during the three year (36 month) period preceding the date on which this form is signed?

No

For this facility, list any other NPDES or other environmental permits (including permit numbers), authorizations, or certifications that have been applied for or issued within the State by ADEM, EPA, Alabama Department of Labor (ADOL), US Army Corp of Engineers (USACE), or other agency, to the applicant, parent corporation, subsidiary, or LLC member whether presently effective, expired, suspended, revoked, or terminated:

AL0084458 issued December 18, 2024

For other facilities, list any other NPDES or other ADEM permits (including permit numbers), authorizations, or certifications that have been applied for or issued within the State by ADEM, EPA, ASMC, ADOL, or USACE, to the applicant, parent corporation, subsidiary, or LLC member whether presently effective, expired, suspended, revoked, or terminated:

NA

Anti-Degradation Evaluation

Pursuant to ADEM Admin. Code ch. 335-6-10-.12(9), responses to the following questions must be provided by the applicant requesting NPDES permit coverage for new or expanded discharges of pollutant(s) to Tier 2 waters (except discharges eligible for coverage under general permits). As part of the permit application review process, the Department is required to consider, based on the applicant's demonstration, whether the proposed new or increased discharge to Tier 2 waters is necessary for important economic or social development in the area in which the waters are located. Does this modification/reissuance include new or expanded discharges to Tier II water(s)?

Yes

NOTE

If the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete questions below, ADEM Form 311-Alternatives Analysis, and either ADEM Form 312 or ADEM Form 313- Calculation of Total Annualized Project Costs (Public-Sector or Private-Sector Projects, whichever is applicable). ADEM Form 312 or ADEM Form 313, whichever is applicable, must be provided for each treatment discharge alternative considered technically viable.

[ADEM forms can be found on the Department's website here.](#)

What environmental or public health problem will the discharger be correcting?

The environmental and public health issues for discharges from mining facilities may include suspended sediment, dissolved solids, pollutants associated with run-off from exposed soils. The facility will minimize these pollutants within receiving water by preventing discharge to extent practicable.

How much will the discharger be increasing employment (at its existing facility or as the result of locating a new facility)?

Applicant plans to staff the site with two heavy equipment operators / drivers. As many as three (3) other employees, either full or part time, may be needed as work load requires.

How much reduction in employment will the discharger be avoiding?

Up to two heavy equipment operators and additional support personnel and any contract dirt haulers that may utilize the site.

How much additional state or local taxes will the discharger be paying?

Estimated to generate \$16,500 in sales tax, \$8,125 in payroll and income taxes; \$9,000 in fuel taxes; approximately \$732 in property taxes; and an additional \$3,000 over the approximately \$230 in ad valorem taxes being paid. Total annual taxes paid to state or local agencies is \$37,587.

What public service to the community will the discharger be providing?

The facility will provide a competitive source of quality base materials for local residential, commercial, and road construction projects, which serves to keep costs for these projects at a reasonable level. The economic multiplier associated with construction wages and materials sales will generate additional taxes and employment in the community. Direct & indirect jobs generated by the site will decrease social pressures caused by unemployment.

What economic or social benefit will the discharger be providing to the community?

Economic benefit will be provided directly through taxes generated through material sales and wages paid to citizens living in the local community. The economic multiplier associated with construction wages and materials sales will generate additional taxes and employment in the community. Direct & indirect jobs generated by the site will decrease social pressures caused by unemployment.

Attach Form 311 (Alternative Analysis)

[form311signed\(2\)_05202026.pdf - 05/22/2026 12:40 PM](#)

Comment

NONE PROVIDED

Please attach Form 312 (Public Sector Projects) or Form 313 (Private Sector Projects).

[Form313_05192026.pdf - 05/19/2026 12:05 PM](#)

Comment

NONE PROVIDED

Activity Description & Information**Narrative description of activity(s):**

Proposed expansion of the existing Shorter Pit for dirt / chert and sand / gravel. Original permit 324 acres and 565 proposed expansion / modification acres.

Total Facility/Operations Area (acres)

889.05

Total Disturbed Area (acres)

66.00

Anticipated Commencement Date

09/01/2026

Anticipated Completion Date

09/01/2031

Please identify which of the following apply to this operation:

Activity/Condition	Appy?
An existing facility/operation which currently results in discharges to State waters?	Yes
A proposed facility/operation which will result in a discharge to State waters?	Yes
Be located within any 100-year flood plain?	No
Discharge to Municipal Separate Storm Sewer?	No
Discharge to waters of or be located in the Coastal Zone?	No
Need/have ADEM UIC permit coverage?	No
Be located on Indian/historically significant lands?	No
Need/have ADEM SID permit coverage?	No
Need/have ASMC permit coverage?	No
Need/have State Oil & Gas Board permit coverage?	No
Need/have ADOL permit coverage?	No
Generate, treat, store, or dispose of hazardous or toxic waste?	No
Be located in or discharge to a Public Water Supply (PWS) watershed or be located within ½ mile of any PWS well?	No
Incised pit	Yes

Does your facility/operation use cooling water?

No

Material to be Removed, Processed, or Transloaded

Material To Be Removed, Processed, Or Transloaded (Note: Sum must equal 100.)

Mineral(s)/Mineral product(s)	%
Dirt and/or Chert	90
Sand and/or Gravel	10
	Sum: 100

Proposed Activity To Be Conducted

Type(s) of activity presently conducted at applicant's existing facility or proposed to be conducted at facility (Select Yes or No):

Activity	Apply?
Adjacent/associated asphalt/concrete plant(s)	No
Alternative fuels operation	No
Auger mining	No
Cement production	No
Chemical processing or leaching	No
Chemicals used in process or wastewater treatment (coagulant, biocide, etc.)	No
Construction related temporary borrow pits/areas	No
Creek/stream crossings	No
Dredging	No
Excavation	Yes
Grading, clearing, grubbing, etc.	Yes
Hydraulic mining	No
Hydraulic mining, dredging, instream or between stream-bank mining	No
Lime production	No
Low volume sewage treatment package plant	No
Mineral dry processing (crushing & screening)	No
Mineral loading	No
Mineral storing	Yes
Mineral transportation	Yes
Mineral wet preparation	Yes
Onsite construction debris or equipment storage/disposal	No
Onsite mining debris or equipment storage/disposal	No
Other beneficiation & manufacturing operations	No
Pre-construction ponded water removal	No
Pre-mining logging or land clearing	Yes
Preparation plant waste recovery	No
Quarrying	No
Reclamation of disturbed areas	No
Solution mining	No
Surface mining	Yes
Synthetic fuel production	No
Underground mining	No
Waterbody relocation or other alteration	No
Within-bank mining	No

If the operation will include activities other than those listed above, please describe them below:

NA

If the type of activity presently conducted or proposed is Mineral Transportation, please indicate which of the following apply:

Barge	Apply?
Barge	No
Rail	No
Truck	Yes

Fuel - Chemical Handling, Storage, & Spill Prevention Control & Countermeasures (SPCC) Plan

Will fuels, chemicals, compounds, or liquid waste be used or stored onsite?

Yes

Please identify the fuel, chemicals, compounds, or liquid waste and indicate the volume of each:

Volume (gallons)	Contents
2.000	Diesel Fuel

SPCC Plan

[2024 SPCC Plan.pdf - 05/19/2026 02:12 PM](#)

Comment

NONE PROVIDED

ASMC Regulated Entities

Is this a coal mining operation regulated by ASMC?

No

Topographic Map Submittal

Topographic Map

Attach to this application a 7.5 minute series U.S.G.S. topographic map(s) or equivalent map(s) no larger than, or folded to a size of 8.5 by 11 inches (several pages may be necessary), of the area extending to at least one mile beyond property boundaries. The topographic or equivalent map(s) must include a caption indicating the name of the topographic map, name of the applicant, facility name, county, and township, range, & section(s) where the facility are located. Unless approved in advance by the Department, the topographic or equivalent map(s), at a minimum, must show: a) An accurate outline of the area to be covered by the permit (b) An outline of the facility (c) All existing and proposed disturbed areas (d) Location of intake and discharge areas (e) Proposed and existing discharge points (f) Perennial, intermittent, and ephemeral streams (g) Lakes, springs, water wells, wetlands (h) All known facility dirt/improved access/haul roads (i) All surrounding unimproved/improved roads (j) High-tension power lines and railroad tracks (k) Contour lines, township-range-section lines (l) Drainage patterns, swales, washes (m) All drainage conveyance/treatment structures (ditches, berms, etc.) (n) Any other pertinent or significant feature.

Topographic Map

[Figure 1 - Facility Location Maprev.pdf - 05/20/2026 11:22 AM](#)

Comment

NONE PROVIDED

Detailed Facility Map Submittal

Detailed Facility Map

[Figure 2 - Current Mining Layoutrev.pdf - 05/20/2026 11:23 AM](#)

[Figure 3 - Proposed Expansion Maprev.pdf - 05/20/2026 11:23 AM](#)

Comment

NONE PROVIDED

Outfalls (1 of 5)

Outfall Identifier: 001

Feature Type

Outfall (External)

Outfall Identifier

001

Outfall Status

Existing

Please be aware that you should only mark an outfall status as existing if (1) the Department has been previously notified that it was constructed as proposed or (2) it began discharge prior to this application. A proposed outfall is one that is being newly added to the permit OR one that has never discharged or has never been authorized by the Department to discharge. Should you have any questions about which status to select, please contact the Department's permit engineer for this site.

Permit Action

No Change

Receiving Water

Cubahatchee Creek

Check below if the discharge enters the receiving water via an unnamed tributary.

Unnamed Tributary

Location of Outfall

32.40839000000000, -85.92484000000000

Are the location coordinates above still correct for this outfall?

Yes

Distance to Receiving Water (ft)

200.0

Disturbed Area (acres)

1.7

Drainage Area (acres)

32.66

303(d) Segment?

No

TMDL Segment?

No

Please do not add a new outfall unless you are requesting a modification that includes a new outfall. All of the currently permitted outfalls are already included in this form. If you add an outfall in error, please choose **Delete** under **Permit Action** for the outfall. If you have any questions, please contact your permit engineer BEFORE proceeding.

Outfalls (2 of 5)**Outfall Identifier: 002****Feature Type**

Outfall (External)

Outfall Identifier

002

Outfall Status

Existing

Please be aware that you should only mark an outfall status as existing if (1) the Department has been previously notified that it was constructed as proposed or (2) it began discharge prior to this application. A proposed outfall is one that is being newly added to the permit OR one that has never discharged or has never been authorized by the Department to discharge. Should you have any questions about which status to select, please contact the Department's permit engineer for this site.

Permit Action

No Change

Receiving Water

Cubahatchee Creek

Check below if the discharge enters the receiving water via an unnamed tributary.

Unnamed Tributary

Location of Outfall

32.41082000000000, -85.92791000000000

Are the location coordinates above still correct for this outfall?

Yes

Distance to Receiving Water (ft)

160.0

Disturbed Area (acres)

2.0

Drainage Area (acres)

13.24

303(d) Segment?

No

TMDL Segment?

No

Please do not add a new outfall unless you are requesting a modification that includes a new outfall. All of the currently permitted outfalls are already included in this form. If you add an outfall in error, please choose **Delete** under **Permit Action** for the outfall. If you have any questions, please contact your permit engineer BEFORE proceeding.

Outfalls (3 of 5)

Outfall Identifier: 003

Feature Type

Outfall (External)

Outfall Identifier

003

Outfall Status

Existing

Please be aware that you should only mark an outfall status as existing if (1) the Department has been previously notified that it

was constructed as proposed or (2) it began discharge prior to this application. A proposed outfall is one that is being newly added to the permit OR one that has never discharged or has never been authorized by the Department to discharge. Should you have any questions about which status to select, please contact the Department's permit engineer for this site.

Permit Action

No Change

Receiving Water

Calebee Creek

Check below if the discharge enters the receiving water via an unnamed tributary.

Unnamed Tributary

Location of Outfall

32.40344000000000, -85.92624000000001

Are the location coordinates above still correct for this outfall?

Yes

Distance to Receiving Water (ft)

100.0

Disturbed Area (acres)

2.75

Drainage Area (acres)

6.17

303(d) Segment?

No

TMDL Segment?

No

Please do not add a new outfall unless you are requesting a modification that includes a new outfall. All of the currently permitted outfalls are already included in this form. If you add an outfall in error, please choose **Delete** under **Permit Action** for the outfall. If you have any questions, please contact your permit engineer BEFORE proceeding.

Outfalls (4 of 5)

Outfall Identifier: 004**Feature Type**

Outfall (External)

Outfall Identifier

004

Outfall Status

Existing

Please be aware that you should only mark an outfall status as existing if (1) the Department has been previously notified that it was constructed as proposed or (2) it began discharge prior to this application. A proposed outfall is one that is being newly added to the permit OR one that has never discharged or has never been authorized by the Department to discharge. Should you have any questions about which status to select, please contact the Department's permit engineer for this site.

Permit Action

No Change

Receiving Water

Cubahatchee Creek

Check below if the discharge enters the receiving water via an unnamed tributary.

Unnamed Tributary

Location of Outfall

32.41245000000000, -85.92579000000001

Are the location coordinates above still correct for this outfall?

Yes

Distance to Receiving Water (ft)

155.0

Disturbed Area (acres)

0.27

Drainage Area (acres)

34.17

303(d) Segment?

No

TMDL Segment?

No

Please do not add a new outfall unless you are requesting a modification that includes a new outfall. All of the currently permitted outfalls are already included in this form. If you add an outfall in error, please choose **Delete** under **Permit Action** for the outfall. If you have any questions, please contact your permit engineer BEFORE proceeding.

Outfalls (5 of 5)**Outfall Identifier: 005****Feature Type**

Outfall (External)

Outfall Identifier

005

Outfall Status

Proposed

Please be aware that you should only mark an outfall status as existing if (1) the Department has been previously notified that it was constructed as proposed or (2) it began discharge prior to this application. A proposed outfall is one that is being newly added to the permit OR one that has never discharged or has never been authorized by the Department to discharge. Should you have any questions about which status to select, please contact the Department's permit engineer for this site.

Permit Action

Add

Receiving Water

Calebee Creek

Check below if the discharge enters the receiving water via an unnamed tributary.

Unnamed Tributary

Location of Outfall
32.413451,-85.929581

Are the location coordinates above still correct for this outfall?
Yes

Distance to Receiving Water (ft)
900.0

Disturbed Area (acres)
60.0

Drainage Area (acres)
198.0

303(d) Segment?
No

TMDL Segment?
No

Please do not add a new outfall unless you are requesting a modification that includes a new outfall. All of the currently permitted outfalls are already included in this form. If you add an outfall in error, please choose **Delete** under **Permit Action** for the outfall. If you have any questions, please contact your permit engineer BEFORE proceeding.

Discharge Characterization

EPA Form 2C, EPA Form 2D, and/or ADEM Form 567 Submittal

Yes, pursuant to 40 CFR 122.21, the applicant requests a waiver for completion of EPA Form 2C, EPA Form 2D, and ADEM Form 567 and certifies that the operating facility will discharge treated stormwater only; that chemical/compound additives are not used (unless waived in writing by the Department on a programmatic, categorical, or individual compound/chemical basis); that there are no process, manufacturing, or other industrial operations or wastewaters, including but not limited to lime or cement production and synfuel operations; and that coal and coal products are not mined nor stored onsite.

Please download the following Excel file to enter your information. Once complete, please attach to the below control.
[Download spreadsheet here.](#)

Required attachment:

[Form315_05192026.xlsx - 05/19/2026 03:00 PM](#)

Comment

005-P is an estimate

Please download the following Excel file to enter your information. Once complete, please attach to the below control.
[Download spreadsheet here.](#)

Required attachment:

[Form315TableC_05192026.xlsx - 05/22/2026 12:44 PM](#)

Comment

NONE PROVIDED

Discharge Structure Description & Pollutant Source

Please download the following Excel file to enter your information. Once complete, please attach to the below control.
[Download spreadsheet here.](#)

Required attachment:

[Form315DischargeStructure_05202026.xlsx - 05/20/2026 07:42 AM](#)

Comment

NONE PROVIDED

Variance Request

Do you intend to request or renew one or more of the CWA technology variances authorized at 40 CFR 122.21(m)?

No

Pollution Abatement & Prevention (PAP) Plan Summary (1 of 1)

Outfall(s):

001E, 002E, 003E, 004E, 005P

Outfall Questions:	Please select one:
Runoff from all areas of disturbance is controlled	Yes
Drainage from pit area, stockpiles, and spoil areas directed to a sedimentation pond	Yes
Sedimentation basin at least 0.25 acre/feet for every acre of disturbed drainage	Yes
Sedimentation basin cleaned out when sediment accumulation is 60% of design capacity	Yes
Trees, boulders, and other obstructions removed from pond during initial construction	Yes
Width of top of dam greater than 12'	Yes
Side slopes of dam no steeper than 3:1	Yes
Cutoff trench at least 8' wide	Yes
Side slopes of cutoff trench no less than 1:1	Yes
Cutoff trench located along the centerline of the dam	Yes
Cutoff trench extends at least 2' into bedrock or impervious soil	Yes
Cutoff trench filled with impervious material	Yes
Embankments and cutoff trench 95% compaction standard proctor ASTM	Yes
Embankment free of roots, tree debris, stones >6" diameter, etc.	Yes
Embankment constructed in lifts no greater than 12"	Yes
Spillpipe sized to carry peak flow from a one year storm event	Yes
Spillpipe will not chemically react with effluent	Yes
Subsurface withdrawal	Yes
Anti-seep collars extend radially at least 2' from each joint in spillpipe	Yes
Splashpad at the end of the spillpipe	Yes
Emergency Spillway sized for peak flow from 25-yr 24-hr event if discharge not into PWS classified stream	Yes
Emergency spillway sized for peak flow from 50-yr 24-hr event if discharge is into PWS classified stream	Yes
Emergency overflow at least 20' long	Yes
Side slopes of emergency spillway no steeper than 2:1	Yes
Emergency spillway lined with riprap or concrete	Yes
Minimum of 1.5' of freeboard between normal overflow and emergency overflow	Yes
Minimum of 1.5' of freeboard between max. design flow of emergency spillway and top of dam	Yes
All emergency overflows are sized to handle entire drainage area for ponds in series	Yes
Dam stabilized with permanent vegetation	Yes
Sustained grade of haul road <10%	Yes
Maximum grade of haul road <15% for no more than 300'	Yes
Outer slopes of haul road no steeper than 2:1	Yes
Outer slopes of haul road vegetated or otherwise stabilized	Yes
Detail drawings supplied for all stream crossings	Yes
Short-Term Stabilization/Grading And Temporary Vegetative Cover Plans	Yes
Long-Term Stabilization/Grading And Permanent Reclamation or Water Quality Remediation Plans	Yes

Pollution Abatement & Prevention (PAP) Plan Review Checklist

General Information:	Please select one:
PE Seal with License #	Yes
Name and Address of Operator	Yes
Legal Description of Facility	Yes
Name of Company	Yes
Number of Employees	Yes
Products to be Mined	Yes
Hours of Operation	Yes
Water Supply and Disposition	Yes

Maps:	Please select one:
Topographic Map including Information from Part XIII (a) (o) of this Application	Yes
1" = 500' or Equivalent Facility Map including Information from Part XIV of this Application	Yes

Detailed Design Diagrams:	Please select one:
Plan Views	Yes
Cross-section Views	Yes
Method of Diverting Runoff to Treatment Basins	Yes
Line Drawing of Water Flow through Facility with Water Balance or Pictorial Description of Water Flow	Yes

Narrative of Operations:	Please select one:
Raw Materials Defined	Yes
Processes Defined	Yes
Products Defined	Yes

Schematic Diagram:	Please select one:
Points of Waste Origin	Yes
Collection System	Yes
Disposal System	Yes

Post Treatment Quantity and Quality of Effluent:	Please select one:
Flow	Yes
Suspended Solids	Yes
Iron Concentration	Yes
pH	Yes

Description of Waste Treatment Facility:	Please select one:
Pre-Treatment Measures	Yes
Recovery System	Yes
Expected Life of Treatment Basin	Yes
Measures for Ensuring Access to All Treatment Structures and Related Appurtenances including Outfall Locations	Yes
Schedule of Cleaning and/or Abandonment	Yes

Other:	Please select one:
Precipitation/Volume Calculations/Diagram Attached	Yes
BMP Plan for Haul Roads	Yes

Other:	Please select one:
Measures for Minimizing Impacts to Adjacent Stream (e.g., Buffer Strips, Berms)	Yes
Measures for Ensuring Appropriate Setbacks are Maintained at All Times	Yes
Methods for Minimizing Nonpoint Source Discharges	Yes
If Chemical Treatment Used, Methods for Ensuring Appropriate Dosage	Yes
Facility Closure Plans	Yes
PE Rationale(s) For Alternate Standards, Designs or Plans	Yes

Pollution Abatement & Prevention (PAP) Plan

Is this a coal mining operation regulated by ASMC?

No

PAP Plan (non-coal mining facilities)

[Shorter Pit PAP_05202026.pdf - 05/22/2026 12:36 PM](#)

Comment

PAPP for existing and proposed acreage.

Professional Engineer (PE)

Registration License Number

19547

Professional Engineer

Prefix

Mr.

First Name Last Name

Phillip Davis

Title

Senior Engineer

Organization Name

LaBella Associates

Phone Type Number Extension

Business 205-985-4874

Email

pdavis@labellapc.com

Address

528 Mineral Trace

Hoover, AL 35244

Information for the Applicant

Please read the following information and acknowledge below:

Contact the Department prior to submittal with any questions or to request acceptable alternate content/format.

Be advised that you are not authorized to commence regulated activity until this application can be processed, publicly noticed, and approval to proceed is received in writing from the Department.

EPA Form(s) 1 and 2F need not be submitted unless specifically required by the Department. EPA Form(s) 2C and/or 2D are required to be submitted unless the applicant is eligible for a waiver and the Department grants a waiver, or unless the relevant information required by EPA Form(s) 2C and/or 2D are submitted to the Department in an alternative format acceptable to the Department.

Planned/proposed mining sites that are greater than 5 acres, that mine/process coal or metallic mineral/ore, or that have wet or chemical processing, must apply for and obtain coverage under an Individual or General NPDES Permit prior to commencement of

any land disturbance. Such Individual NPDES Permit coverage may be requested via this ADEM Form 315.

The applicant is advised to contact:

- (1) The Alabama Surface Mining Commission (ASMC) if coal, coal fines, coal refuse, or other coal related materials are mined, transloaded, processed, etc.;
- (2) The Alabama Department of Labor (ADOL) if conducting non-coal mining operations;
- (3) The Alabama Historical Commission for requirements related to any potential historic or culturally significant sites;
- (4) The Alabama Department of Conservation and Natural Resources (ADCNR) for requirements related to potential presence of threatened/endangered species;
- (5) The US Army Corps of Engineers, Mobile or Nashville Districts, if this project could cause fill to be placed in federal waters or could interfere with navigation.

The Department must be in receipt of a completed version of this form, including any supporting documentation, and the appropriate processing fee [including Greenfield Fee and Biomonitoring & Toxicity Limits fee(s), if applicable], prior to development of a draft NPDES permit.

Acknowledgement

I acknowledge I have read and understand the information above.

Additional Attachments

Additional Attachments

[Wetlands Report for Expansion dated April 2026 WL26-610_Report_260429.pdf - 05/21/2026 07:06 AM](#)

Comment

Wetlands report for the proposed expansion / permit mod.

Application Preparer

Application Preparer

Prefix

Mr.

First Name Last Name

Phillip Davis

Title

Senior Engineer

Organization Name

LaBella Associates

Phone Type Number Extension

Business 205-985-4874

Email

pdavis@labellapc.com

Address

528 Mineral Trace

Hoover, AL 35244

Fees Assessed

The following itemized fees have been assessed in accordance with Fee Schedule D and 335-1-6-.04(a) of ADEM Admin. Code Division 1 regulations based on the information provided in this application.

If the correct fees are not displayed, please contact your permit engineer PRIOR to submitting the form. Do NOT answer questions erroneously in order to have the correct fee assessed.

Wet Preparation, Processing, Beneficiation:

6860

Fee

Fee
6860

Agreements and Signature(s)

SUBMISSION AGREEMENTS

- ☒ I am the owner of the account used to perform the electronic submission and signature.
- ☒ I have the authority to submit the data on behalf of the facility I am representing.
- ☒ I agree that providing the account credentials to sign the submission document constitutes an electronic signature equivalent to my written signature.
- ☒ I have reviewed the electronic form being submitted in its entirety, and agree to the validity and accuracy of the information contained within it to the best of my knowledge.

Professional Engineer (PE)

A detailed, comprehensive Pollution Abatement & Prevention (PAP) Plan must be prepared, signed, and certified by a professional engineer (PE), registered in the State of Alabama, and the PE must certify as follows: I certify under penalty of law that the technical information and data contained in this application, and a comprehensive Pollution Abatement & Prevention (PAP) Plan, including any attached SPCC plan, maps, engineering designs, etc. acceptable to ADEM, for the prevention and minimization of all sources of pollution in stormwater and authorized related process wastewater runoff has been prepared under my supervision at this facility utilizing effective, good engineering and pollution control practices and in accordance with the provisions of this Permit, and ADEM Admin. Code Division 335-6, including Chapter 335-6-9 and Appendices A & B. If the PAP Plan is properly implemented and maintained by the Permittee, discharges of pollutants can reasonably be expected to be effectively minimized to the maximum extent practicable and according to permit discharge limitations and other permit requirements. The applicant has been advised that appropriate pollution abatement/prevention facilities and structural & nonstructural management practices or Department approved equivalent management practices as detailed in the PAP Plan must be fully implemented and regularly maintained as needed at the facility in accordance with good sediment, erosion, and other pollution control practices, permit requirements, and other ADEM requirements to ensure protection of groundwater and surface water quality.

Signed By Phillip Davis on 05/22/2026 at 2:51 PM

Responsible Official

This application must be signed and initialed by a Responsible Official of the applicant pursuant to ADEM Admin. Code Rule 335-6-6-.09 who has overall responsibility for the operation of the facility. I certify under penalty of law that this document, including technical information and data, the PAP Plan, including any SPCC plan, maps, engineering designs, and all other attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the PE and other person or persons under my supervision who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations. A comprehensive PAP Plan to prevent and minimize discharges of pollution to the maximum extent practicable has been prepared at my direction by a PE for this facility utilizing effective, good engineering and pollution control practices and in accordance with the provisions of ADEM Admin. Code Division 335-6, including Chapter 335-6-9 and Appendices A & B, and information contained in this application, including any attachments. I understand that regular inspections must be performed by, or under the direct supervision of, a PE and all appropriate pollution abatement/prevention facilities and structural & nonstructural management practices or Department approved equivalent management practices identified by the PE must be fully implemented prior to and concurrent with commencement of regulated activities and regularly maintained as needed at the facility in accordance with good sediment, erosion, and other pollution control practices and ADEM requirements. I understand that the PAP Plan must be fully implemented and regularly maintained so that discharges of pollutants can reasonably be expected to be effectively minimized to the maximum extent practicable and according to permit discharge limitations and other requirements to ensure protection of groundwater and surface water quality. I understand that failure to fully implement and regularly maintain required management practices for the protection of groundwater and surface water quality may subject the Permittee to appropriate enforcement action. I certify that this form has not been altered, and if copied or reproduced, is consistent in format and identical in content to the ADEM approved form. I further certify that the discharges described in this application have been tested or evaluated for the presence of non-stormwater discharges and any non-mining associated beneficiation/process pollutants and wastewaters have been fully identified. I acknowledge my understanding that I may be required to obtain a permit from the ADOL. I acknowledge my understanding that if the proposed activities will be conducted in or potentially impact waters of the state or waters of the US (including wetlands), that I may be required to obtain a permit from the USACE.

Signed By Jeffrey Rice on 05/22/2026 at 4:53 PM

Attachment 1 to Supplementary Form ADEM Form 311

Alternatives Analysis

Applicant/Project: Shorter Pit, Shorter, Macon County, AL

All new or expanded discharges (except discharges eligible for coverage under general permits) covered by the NPDES permitting program are subject to the provisions of ADEM's antidegradation policy. Applicants for such discharges to Tier 2 waters are required to demonstrate " . . . that the proposed discharge is necessary for important economic or social development." As a part of this demonstration, the applicant must complete an evaluation of the discharge alternatives listed below, including a calculation of the total annualized project costs for each technically feasible alternative (using ADEM Form 312 for public-sector projects and ADEM Form 313 for private-sector projects). Alternatives with total annualized project costs that are less than 110% of the total annualized project costs for the Tier 2 discharge proposal are considered viable alternatives.

Alternative	Viable	Non-Viable	Comment
1 Land Application		X	Water quantity is too great
2 Pretreatment/Discharge to POTW		X	POTW not available
3 Relocation of Discharge		X	Proposed alternative has no surface discharge to be relocated
4 Reuse/Recycle	X		
5 Process/Treatment Alternatives		X	Retention / settling on site is most viable processing alternative
6 On-site/Sub-surface Disposal		X	Regulatory applicability of NPDES Program makes this alternative unfeasible
<i>(other project-specific alternatives considered by the applicant; attach additional sheets if necessary)</i>			
7			
8			
9			

Pursuant to ADEM Administrative Code Rule 335-6-3-.04, I certify on behalf of the applicant that I have completed an evaluation of the discharge alternatives identified above, and reached the conclusions indicated.

Signature: 
(Professional Engineer)

Date: 05-19-2026

(Supporting documentation to be attached, referenced, or otherwise handled as appropriate.)

The applicant is required to supply the following information separately for every proposed or existing outfall. Identify and list expected average daily discharge of any other pollutant(s) listed in EPA Form 2C Tables A, B, C, D, and E that are not referenced in Part XVI.B. or otherwise submitted elsewhere, that you know is present or have reason to believe could be present in the discharge(s) at levels of concern:

[illegible]

The applicant is required to supply outfall number(s) as it appears on the map(s) required by this application [if this application is for a modification to an existing permit do not change the numbering sequence of the permitted outfalls], describe each, (e.g., pipe, spillway, channel, tunnel, conduit, well, discrete fissure, or container), and identify the origin of pollutants. The response must be precise for each outfall. If the discharge of pollutants from any outfall is the result of commingling of waste streams from different origins, each origin must be completely described.

Description of Origin of Pollutants – typical examples: (1) Discharge of drainage from the underground workings of an underground coal mine, (2) Discharge of drainage from a coal surface mine, (3) Discharge of drainage from a coal preparation plant and associated areas, (4) Discharge of process wastewater from a gravel-washing plant, (5) Discharge of wastewater from an existing source coal preparation plant, (6) Discharge of drainage from a sand and gravel pit, (7) Pumped discharge from a limestone quarry, (8) Controlled surface mine drainage (pumped or siphoned), (9) Discharge of drainage from mine reclamation, (10) Other (please describe):

Outfall	Discharge structure Description	Description of Origin of pollutants	Surface Discharge	Groundwater Discharge	Wet Prep -Other Production Plant	Pumped or Controlled Discharge	Low Volume STP
001-E	Spillway	6	Yes	Yes	NA	NA	NA
002-E	Spillway	6	Yes	Yes	NA	NA	NA
003-E	Pipe	6 & 10	Yes	Yes	NA	NA	NA
004-E	Spillway	6	Yes	Yes	NA	NA	NA
005-P	Spillway	6	Yes	Yes	NA	NA	NA

The applicant is required to supply the following information separately for every proposed (P) or existing (E) outfall. List expected average daily discharge flow rate in cfs and gpd; frequency of discharge in hours per day and days per month; average summer and winter temperature of discharge(s) in degrees centigrade; average pH in standard units; and average daily discharges in pounds per day of BOD5, Total Suspended Solids, Total Iron, Total Manganese, and Total Aluminum (if bauxite or bauxitic clay or if otherwise believed present):

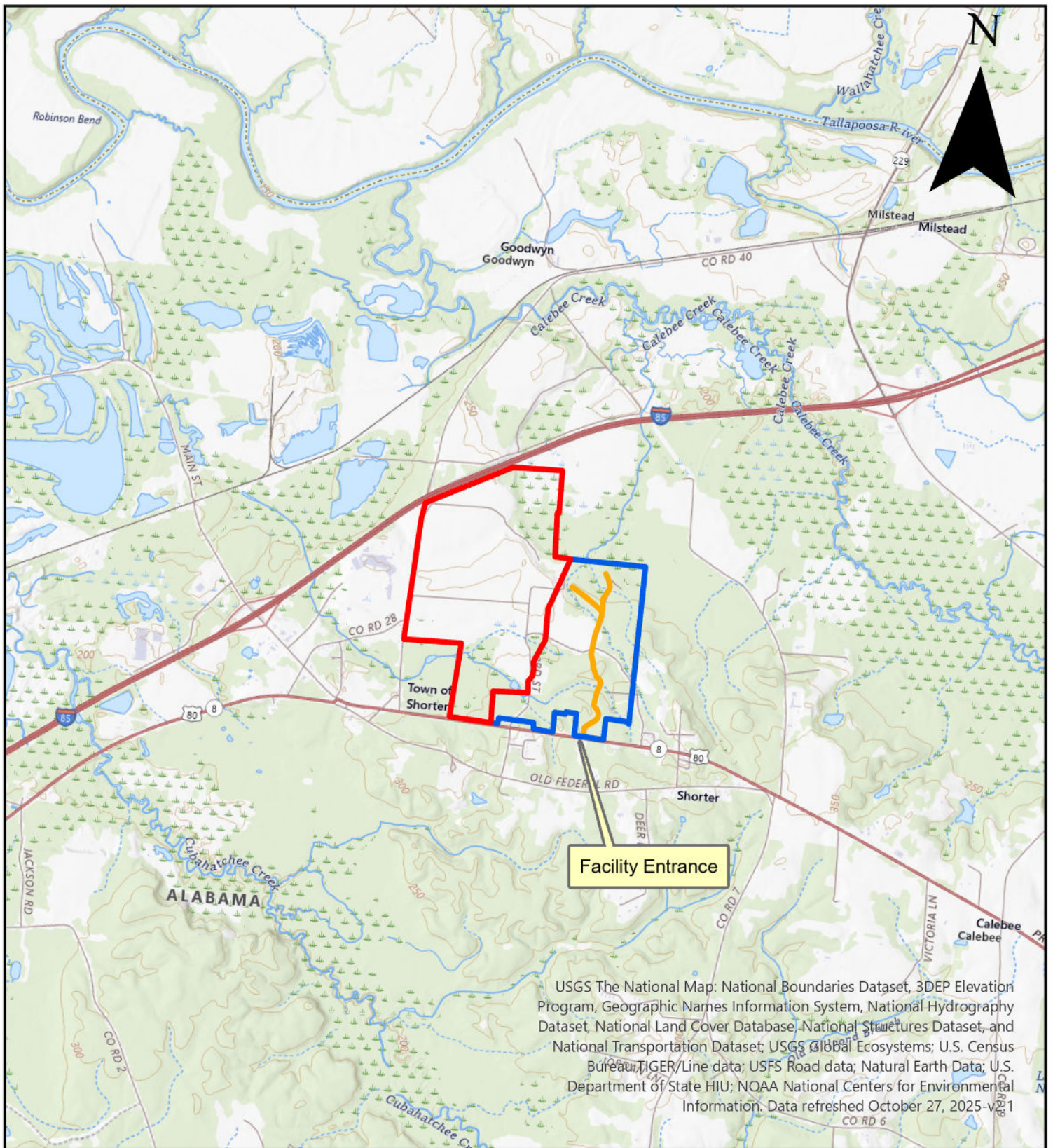
Outfall E/P	Information Source - # of Samples	Flow (cfs)	Flow (gpd)	Frequency (hours/day)	Frequency (days/month)	Sum/Win Temp, (°C)	pH (s.u.)	BOD5 (lbs/day)	TSS (lbs/day)	Tot Fe (lbs/day)	Tot Mn (lbs/day)	Tot Al (lbs/day)
001-E		0.117	1353	Precip Drive 24/7	Precip Drive 30/12	30/10	7	<2	<5	<5	<5	<5
002-E		0.19	2198	Precip Drive 24/7	Precip Drive 30/12	30/10	7	<2	<5	<5	<5	<5
003-E		0.138	7982	Precip Drive 24/7	Precip Drive 30/12	30/10	7	<2	<5	<5	<5	<5
004-E		0.019	220	Precip Drive 24/7	Precip Drive 30/12	30/10	7	<2	<5	<5	<5	<5
005-P		0.4	10000	Precip Drive 24/7	Precip Drive 30/12	30/10	7	<2	<5	<5	<5	<5

**Calculation of Total Annualized Project Costs
for Private-Sector Projects**

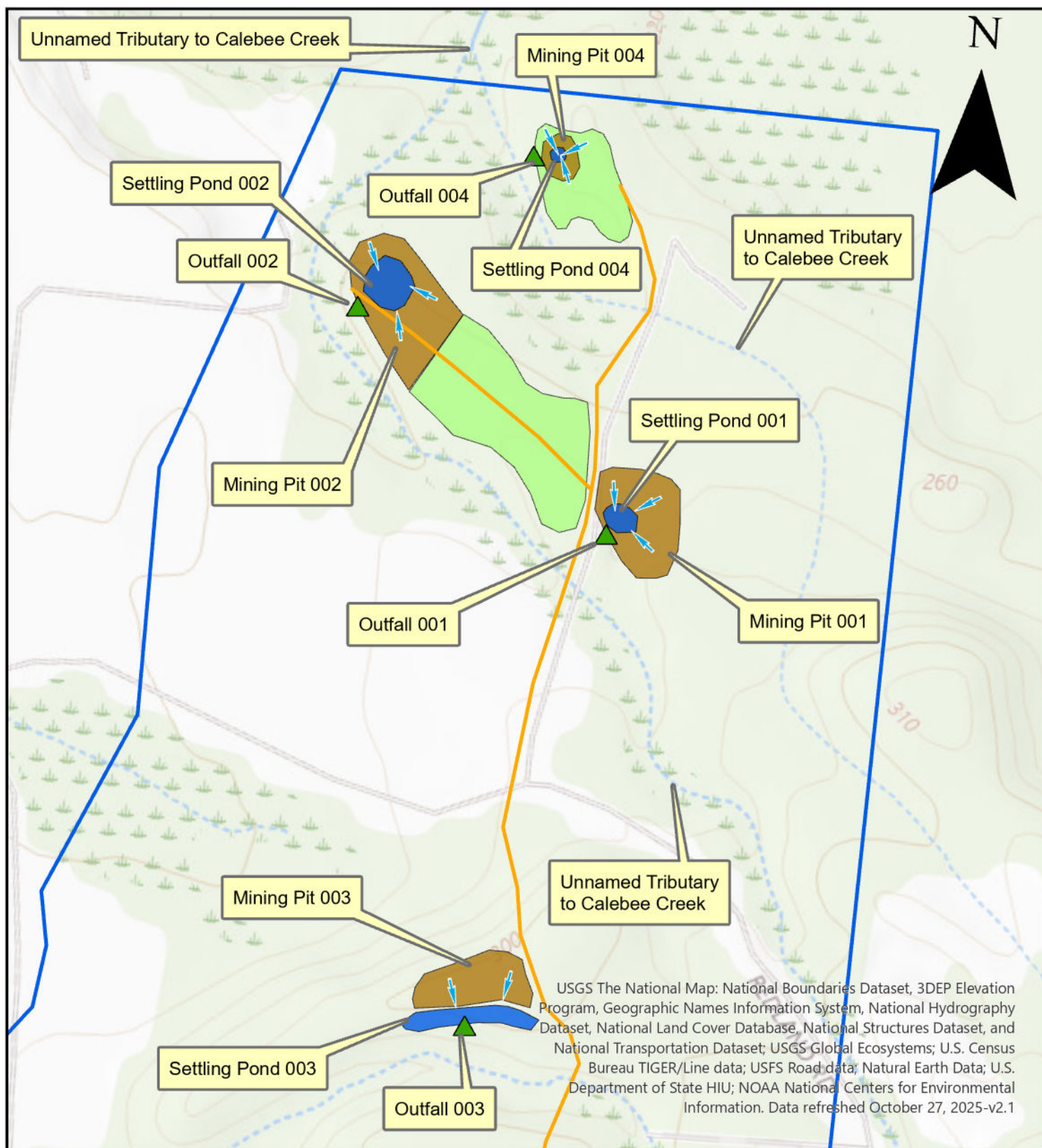
Capital Costs to be Financed (Supplied by applicant)	<u>\$ 1000 (1)</u>
Interest rate for Financing (Expressed as a decimal)	<u>0.05 (i)</u>
Time Period of Financing (Assume 10 years*)	<u>10 years (n)</u>
Annualization Factor = $\frac{i}{(1+i)^{10} - 1} + i$	<u>0.12950 (2)</u>
Annualized Capital Cost [Calculate: (1) x (2)]	<u>\$ 130 (3)</u>
Annual Cost of Operation and Maintenance (including but not limited to monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement)**	<u>\$ 3000 (4)</u>
Total Annual Cost of Pollution Control Project [(3) + (4)]	\$ 3130 (5)

* While actual payback schedules may differ across projects and companies, assume equal annual payments over a 10-year period for consistency in comparing projects.

** For recurring costs that occur less frequently than once a year, pro rate the cost over the relevant number of years (e.g., for pumps replaced once every three years, include one-third of the cost in each year).



Legend Previously Permitted Area Proposed Permit Area Extension Existing Haul Road	 LaBella Powered by partnership. 528 MINERAL TRACE HOOVER, AL 35244 (205) 985-4874	TITLE: Facility Location Map Shorter Pit PAP Plan CAA, LLC U.S. Highway 80 Shorter, Alabama SCALE: 0 2,000 4,000  1 in = 4,000 ft	FIGURE NO. 1 PROJECT NO. 2262691 DRAWN BY KDC DATE DRAWN 05/18/2026
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Legend

- Previously Permitted Area
- Existing Reclamation Area
- Current Mining Pit
- Current Settling Pond
- Existing Haul Road
- Expected Flow Direction
- ▲ Existing Outfall



528 MINERAL TRACE
HOOVER, AL 35244
(205) 985-4874

TITLE:
Current Mining Layout

Shorter Pit PAP Plan

CAA, LLC
U.S. Highway 80
Shorter, Alabama

SCALE: 0 250 500

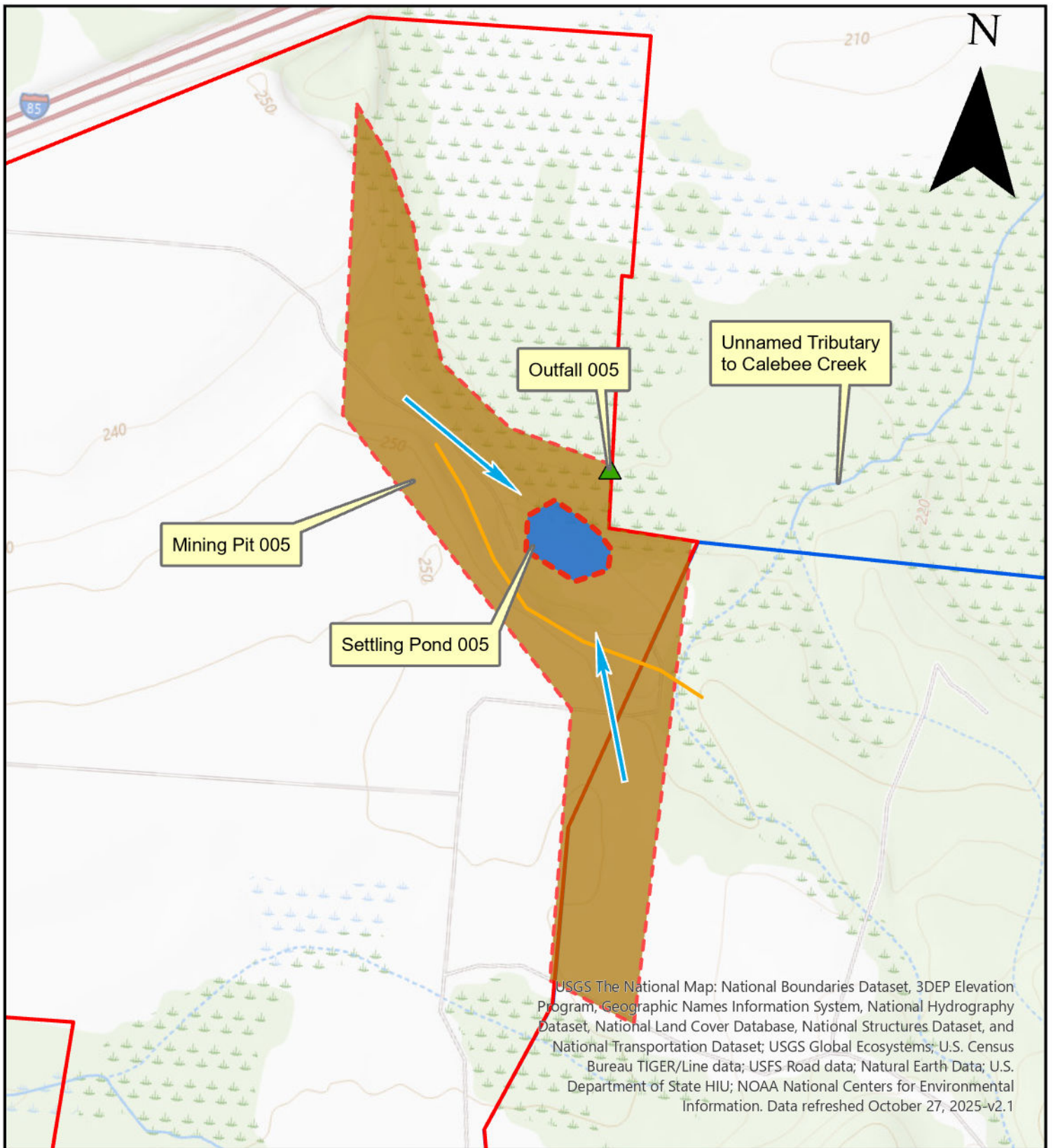
1 in = 800 ft

FIGURE NO.
2

PROJECT NO.
2262691

DRAWN BY
KDC

DATE DRAWN
05/18/2026



Legend

- Previously Permitted Area
- Proposed Permit Area Extension
- Proposed Mining Pit
- Proposed Settling Pond
- Proposed Haul Road
- ➔ Expected Flow Direction
- ▲ Proposed Outfall



528 MINERAL TRACE
HOOVER, AL 35244
(205) 985-4874

TITLE:
Proposed Expansion Map

Shorter Pit PAP Plan

CAA, LLC
U.S. Highway 80
Shorter, Alabama

SCALE: 0 350 700

1 in = 700 ft

FIGURE NO.
3

PROJECT NO.
2262691

DRAWN BY
KDC

DATE DRAWN
05/18/2026

WETLAND & STREAM EVALUATION
SEGREST FARM
SHORTER, MACON COUNTY, ALABAMA
SECTIONS 26, 27, 34 & 35, TOWNSHIP 17 NORTH, RANGE 21 EAST
SECTIONS 2 & 3, TOWNSHIP 16 NORTH, RANGE 21 EAST
BIORESOURCES PROJECT NO. WL26-610

Prepared for:

Central Alabama Aggregates, LLC
2855 Zelda Road
Montgomery, AL 36106

Prepared by:



2124 Moore's Mill Road
Suite 210
Auburn, Alabama 36830

April 29, 2026

WETLAND & STREAM EVALUATION
SEGREST FARM
SHORTER, MACON COUNTY, ALABAMA
SECTIONS 26, 27, 34 & 35, TOWNSHIP 17 NORTH, RANGE 21 EAST
SECTIONS 2 & 3, TOWNSHIP 16 NORTH, RANGE 21 EAST
BIORESOURCES PROJECT NO. WL26-610

Prepared by:



Doug Dallas, President
BioResources, LLC

4/29/20

Date



Garth Crow
BioResources, LLC

4-29-20

Date

**WETLAND & STREAM EVALUATION
SEGREST FARM
SHORTER, MACON COUNTY, ALABAMA
SECTIONS 26, 27, 34 & 35, TOWNSHIP 17 NORTH, RANGE 21 EAST
SECTIONS 2 & 3, TOWNSHIP 16 NORTH, RANGE 21 EAST
BIORESOURCES PROJECT NO. WL26-610**

1. INTRODUCTION

BioResources, LLC was retained by Central Alabama Aggregates, LLC for the purpose of evaluating the Segrest Farm site for the presence of Waters of the U.S. (wetlands and streams under the jurisdiction of the U.S. Army Corps of Engineers (USACE)). Central Alabama Aggregates, LLC desires to determine the extent of jurisdictional waters on the site in order to facilitate planning decisions for the future development of the site. This evaluation included a field survey for locating and delineating jurisdictional streams and wetlands. Fieldwork was performed in July and August 2024 and March and April 2026.

At the time of this determination, the definition of Waters of the U.S. in the Mobile District of USACE is based on the pre-2015 regulatory regime and the Sackett decision. Isolated wetlands, those that do not immediately abut a jurisdictional stream, are not considered as jurisdictional 'Waters of the U.S.' even though they meet the criteria for the three wetland parameters (vegetation, soil, and hydrology).

2. SITE DESCRIPTION

2.1 Site Location

The Segrest Farm site is approximately 709.66 acres located south of Interstate 85 in Shorter, Macon County, Alabama. The study area is located at latitude 32.4112° North and longitude 85.9375° West in Sections 26, 27, 34 & 35, Township 17 North, Range 21 East and Sections 2 & 3, Township 16 North, Range 21 East. The site is composed of multiple parcels and is bordered by Interstate 85 to the north; agricultural and forested land to the east and south; and County Road 40 to the west. The area is depicted on the Shorter, Alabama Quadrangle, United States Geological Survey Topographic Map (7.5-minute series). The site is within the Lower Tallapoosa watershed (HUC 03150110). A Vicinity Map and a Site Location Map (Figures 1 & 2) are enclosed.

2.2 Physiographic and Geologic Setting

The Segrest Farm site is located in the Alluvial – deltaic plain of the Tallapoosa River as it runs between the Fall Line Hills District and the Black Belt District of the Coastal Plain Physiographic Province. The Alluvial – deltaic plain is an area of alluvial deposition located along both sides of the

major rivers flowing through the Coastal Plain Province. Mixed hardwood/evergreen forests are dominant in the uplands with mixed deciduous forests located along rivers and streams.

2.3 Soils

According to the Web Soil Survey (Figure 3), there are 14 mapped soils on the site: Bama fine sandy loam, 2-5% slopes (BaB); Blanton-Luverne complex, 12-25% slopes (BnE); Kinston-Mooreville complex, Cahaba sandy loam, 0-2% slopes, rarely flooded (CaA), Eunola sandy loam, 0-2% slopes, rarely flooded (EuA), Fluvaquents silt loam, 0-1% slopes, frequently flooded (FuA); Kinston-Mooreville complex, 0-1% slopes, frequently flooded (KmA); Lynchburg fine sandy loam, 0-2% slopes, rarely flooded (LyA); Malbis fine sandy loam, 0-2% slopes (MaA); Marvyn sandy loam, 0-2% slopes (MnA); Marvyn sandy loam, 2-5% slopes (MnB); Myatt loam, 0-1% slopes, rarely flooded (MyA); Red Bay sandy loam, 0-2 % slopes (RbA); Springhill sandy loam, 2-5% slopes (SbB); and Udorthents, rough (UdE). The Myatt soil series is included on the Hydric Soils list for Macon County; the Kinston component of the Kinston-Mooreville complex is a recognized hydric soil. Hydric inclusions of Kinston, Bibb, Rains, and Myatt soils may occur on floodplains in the Blanton-Luverne complex, Cahaba, and Myatt soil series.

2.4 Surface Hydrology

The U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory (NWI) Digital Wetlands Mapper (Figure 4) denotes three forested wetlands, one emergent wetland, and one flooded wetland on the project site. No streams are denoted on the site.

The U.S. Geological Survey (USGS) 7.5-minute Quadrangle Map for Shorter, Alabama (revised 1981) (Figure 2) denotes two intermittent streams, one perennial stream, three ponds, and one wetland on the project site. On the northern half of the site, surface water drains to an unnamed tributary to Calebee Creek; on the southern half of the site, surface water drains to an unnamed tributary to Cubahatchee Creek.

2.5 Habitat Description

At the time of the fieldwork, approximately 441.5 acres (62.5%) of the site was actively farmed agricultural fields. Shrub/scrub wetland areas represent 16.2 acres (0.02%) of the site, equipment storage represents 5.7 acres (0.01%), former mine pits represent 68.4 acres (9.7%), and forested areas represent approximately 174.7 acres (27.8%). In the southeast corner of the site, beavers have blocked a culvert under the farm road and impounded the wetland to the east of the road. On the west side of the site, adjacent to the equipment storage area, the culvert under County Road 40 is elevated above the wetland and water backs up onto the site.

The Web Soil Survey map (Figure 3) is on a 2023 aerial photograph, the USFWS NWI map (Figure 4) is on a 2023 aerial photograph, and Figure 5 is a January 2024 aerial that depicts the conditions on the site at the time of the fieldwork.

3. JURISDICTIONAL STUDIES

3.1 Jurisdictional Streams

Jurisdictional studies identified seven Relatively Permanent Waters (RPWs), totaling approximately 7,722 feet (Table 1) on the project site. Streams were located with sub-meter Global Positioning Systems (GPS) equipment (Trimble R1 with SBAS Correction) and topographic mapping of the site. Maps illustrating the streams are included in Appendix A (Figures 5A & 5B). Representative photographs of the streams are included in Appendix B.

Table 1. Stream Summary Table.

Stream	Length (feet)	Location		Hydrology	Classification	Drainage Association
		Latitude	Longitude			
Stream 1, Reach 1	2,360	32.4033 N	85.9341 W	Intermittent	RPW	Tributary to Cubahatchee Creek
Stream 1, Reach 2	303	32.4051 N	85.9378 W	Perennial	RPW	Tributary to Cubahatchee Creek
Stream 2	1,143	32.4042 N	85.9371 W	Intermittent	RPW	Tributary to Stream 1
Stream 3	763	32.4060 N	85.9366 W	Intermittent	RPW	Tributary to Stream 1
Stream 4	992	32.4036 N	85.9341 W	Intermittent	RPW	Tributary to Stream 1
Stream 5	170	32.4033 N	85.9339 W	Intermittent	RPW	Tributary to Stream 1
Stream 6	349	32.4054 N	85.9357 W	Intermittent	RPW	Wetland 3
Stream 7	1,642	32.4228 N	85.9222 W	Intermittent	RPW	Tributary to Calebee Creek
TOTAL	7,722					

Stream 1, Reach 1 is an intermittent RPW that originates south of the project site. The stream reach enters the site and flows northwest for approximately 2,360 feet to its confluence with Stream 3. Reach 2 begins at the confluence with Stream 3; at the confluence, it becomes a perennial stream and flows west for 303 feet before leaving the site. At the time of the fieldwork, flowing water was observed in the channel. A designation of “Partially Unstable” was given to both reaches of this stream. Wetlands 3 and 5 abut Stream 1.

Stream 2 is an intermittent RPW that originates on the project site. The stream flows northwest for approximately 1,143 feet to its confluence with Reach 2 of Stream 1. At the time of the fieldwork, flowing water was not observed in the channel. A designation of “Partially Unstable” was given to this stream. Wetland 3 abuts Stream 2.

Stream 3 is an intermittent RPW that originates on the project site at the west end of Ditch 1. The stream flows southwest for approximately 763 feet to its confluence with Stream 1. At the

time of the fieldwork, flowing water was observed in the channel. A designation of “Partially Unstable” was given to this stream. Wetland 3 abuts Stream 3.

Stream 4 is an intermittent RPW that originates on the project site below an old pond dam. The stream flows northwest for approximately 992 feet to its confluence with Reach 1 of Stream 1. At the time of the fieldwork, flowing water was not observed in the channel. A designation of “Partially Unstable” was given to this stream. Wetland 3 abuts Stream 4.

Stream 5 is an intermittent RPW that originates on the project site on the floodplain of Reach 1 of Stream 1. The stream flows northwest for approximately 170 feet to its confluence with Reach 1 of Stream 1. At the time of the fieldwork, flowing water was not observed in the channel. A designation of “Partially Unstable” was given to this stream. No wetlands were identified along the stream.

Stream 6 is an intermittent RPW that originates on the project site in Wetland 3. From its origin in the wetland the stream flows northwest for approximately 349 feet; along its course it leaves the wetland and returns to the wetland before the channel becomes indistinct in a sediment plume in the wetland. At the time of the fieldwork, flowing water was observed in the upper half of the channel. A designation of “Partially Unstable” was given to this stream. Wetland 3 abuts Stream 6.

Stream 7 is an intermittent RPW that originates south of the project site. The stream enters the site then flows north for approximately 1,642 feet through Wetland 7. At the time of the fieldwork, flowing water was observed in the channel. A designation of “Stable” was given to this stream. Wetland 7 abuts Stream 7.

3.2 Jurisdictional Wetlands

Identification of wetlands was conducted according to the *Corps of Engineers Wetland Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0)* (2010). Six jurisdictional wetlands (67.25 acres) (Table 2) were identified on the site. Wetland boundaries were located using sub-meter GPS (Trimble R1 with SBAS Correction). Maps illustrating the wetlands (Figures 5A & 5B) are included in Appendix A. Representative photographs of the Data Points are included in Appendix B. Wetland Determination Data Forms were completed within the wetlands (odd numbered forms) and on the adjacent upland areas (even numbered data forms) and are included in Appendix C.

Wetland 2 is approximately 5.30 acres in size and of moderate quality. Fifty-three flags were used to delineate Wetland 2. The wetland is not located entirely within the project boundaries; it continues to the south of the project site. Wetland Determination Data Forms (Appendix C) were completed for this wetland (Data Point 201) and in the adjacent cotton field (Data Point 202). This wetland is mowed every 2-3 years and the Cowardin classification for this wetland is as a persistent palustrine emergent system on saturated soils (PEM1B).

Table 2. Jurisdictional Wetland Summary Table

Wetland	Area (acres)	Location		Drainage Association
		Latitude	Longitude	
2	5.30	32.4068 N	85.9394 W	Drains to Cubahatchee Creek
3	15.58	32.4056 N	85.9345 W	Abuts Stream 1 Reaches 1 & 2, Stream 2, Stream 3, Stream 4, Stream 6, and Ditches 1 & 2
4	7.96	32.4062 N	85.9312 W	Abuts Stream 1 Reaches 1 & 2, Stream 2, Stream 3, Stream 4, Stream 6, and Ditches 1 & 2
5	0.76	32.4024 N	85.9330 W	Abuts Stream 1, Reach 1
6	27.32	32.4154 N	85.9308 W	Abuts Ditch 3, Mine Pit 1
7	10.33	32.4227 N	85.9218 W	Abuts Stream 7
TOTAL	67.25			

Wetland 3 is approximately 15.58 acres in size and of moderate to high quality. One hundred thirty-eight flags were used to delineate Wetland 3. The wetland is located entirely within the project boundaries. Two pairs of Wetland Determination Data Forms (Appendix C) were completed for this wetland. Data Points 301 and 303 are in the wetland; while Data Point 302 is located in the cotton field adjacent to the wetland and Data Point 304 is located in the forest adjacent to the wetland. Approximately 6.84 acres of this wetland is located adjacent to the agricultural fields and is mowed every 2-3 years; the Cowardin classification for this portion of the wetland is as a palustrine shrub/scrub system on saturated soils (PSS1B). Approximately 8.74 acres of this wetland is forested and the Cowardin classification for this portion of the wetland is as a broad-leaved deciduous forested system on saturated soils (PFO1B). Wetland 3 abuts Stream 1, Reaches 1 and 2; Stream 2; Stream 3; Stream 4; Stream 6; and Ditches 1 and 2.

Wetland 4 is approximately 7.96 acres in size and of moderate to high quality. Forty-six flags were used to delineate Wetland 4. The wetland is not located entirely within the project boundaries; it continues to the east of the project site. Wetland Determination Data Forms (Appendix C) were completed for this wetland (Data Point 401) and in the cotton field adjacent to the wetland (Data Point 402). Cowardin classification for this wetland is as a broad-leaved deciduous forested system on saturated soils (PFO1B). At the time of the fieldwork, Wetland 4 was impounded by a farm road; the culvert under the road had been blocked by beavers.

Wetland 5 is approximately 0.76 acres in size and of high quality. Twenty-six flags were used to delineate Wetland 5. The wetland is located entirely within the project boundaries, it is located in the basin of an impoundment that existed on Stream 1, Reach 1 into the early 1970s. Seasonally, standing water is present in the wetland. Wetland Determination Data Forms (Appendix C) were completed for this wetland (Data Point 501) and in the adjacent upland forest

(Data Point 502). Cowardin classification for this wetland is as a broad-leaved deciduous forested system on saturated soils (PFO1B). Wetland 5 abuts Reach 1 of Stream 1.

Wetland 6 is approximately 27.32 acres in size and of high quality. Fourteen flags were used to delineate Wetland 6. The wetland is not located entirely within the project boundaries, but it continues east of the project site. Wetland Determination Data Forms (Appendix C) were completed for this wetland (Data Point 601) and in the adjacent upland forest (Data Point 602). Cowardin classification for this wetland is as a broad-leaved deciduous forested system on saturated soils (PFO1B). Wetland 6 abuts Mine Pit 1 and the non-jurisdictional ditch (Ditch 3).

Wetland 7 is approximately 10.33 acres in size and of high quality. Eighty-four flags were used to delineate Wetland 7. The wetland is not located entirely within the project boundaries, it continues south of the project site. Wetland Determination Data Forms (Appendix C) were completed for this wetland (Data Point 701) and in the adjacent upland forest (Data Point 702). Cowardin classification for this wetland is as a broad-leaved deciduous forested system on saturated soils (PFO1B). Wetland 7 abuts Stream 7.

3.3 Jurisdictional Ditches

There are two jurisdictional ditches located in Wetland 3. Ditch 1 (918 feet) begins at the outfall of the culvert under a farm road and runs to the head of Stream 3; stream conditions are not present in the ditch. Ditch 2 (766 feet) is in the north end of Wetland 3 and runs near the edge of the agricultural fields; it terminates in Stream 3.

3.4 Jurisdictional Mine Pit

Mine Pit 1 is a jurisdictional mine pit (approximately 59.3 acres) located between Wetland 6 and Interstate 85. This pit is visible on the 1985 Google Earth aerial.

3.5 Non-Jurisdictional Features

At the north end of the site, an intermittent stream that is depicted on the USGS Shorter Topographic map (Figure 2) does not exist. A Wetland Determination Data Form (Appendix C: Data Point 901) was completed in the low area adjacent to County Road 40 to document upland conditions in the area. The field was planted in corn, the field margin was completely vegetated, and no indicators of stream conditions were observed in the area. Aerial imagery from 1942 does not indicate the presence of a stream (Figure 6).

A second Wetland Determination Data Form (Appendix C: Data Point 902) was completed in a low area on the east side of the same field to document that the depicted stream did not flow to the east. As with the above location; the field was planted in corn, the field margin was completely vegetated, and no indicators of stream conditions were observed in the area. Aerial imagery from 1942 does not indicate the presence of a stream (Figure 6).

3.5.1 Non-Jurisdictional Wetlands

Wetland 1 is approximately 2.45 acres (Table 3) and of moderate to low quality. Twenty-six flags were used to delineate Wetland 1. The wetland is located entirely within the project boundaries. Wetland Determination Data Forms (Appendix C) were completed for this wetland (Data Point 101) and in the adjacent upland (Data Point 102). The culvert under County Road 40 is elevated above the base level of the wetland; consequently, during rainfall events water is impounded in the wetland. Based on the existing vegetation, this situation has existed for years. On the west side of County Road 40 at the outfall of the culvert, water enters a roadside ditch and flows approximately 1,800 feet to an unnamed tributary to Cubahatchee Creek. This wetland is mowed every 2-3 years and the Cowardin classification for this wetland is as a persistent palustrine emergent system on saturated soils (PEM1B).

Table 3. Non-Jurisdictional Features Summary Table

Feature	Area / Length (acres) /(feet)	Location		Drainage Association
		Latitude	Longitude	
Wetland 1	2.45 acres	32.4074 N	85.9426 W	Isolated
Wetland 8	5.27 acres	32.4211 N	85.9190 W	Isolated
Ditch 3	1,578 feet	32.4146 N	85.9322 W	Isolated
Mine Pit 2	1.12 acres	32.4195 N	85.9350 W	Isolated
Mine Pit 3	7.51 acres	32.4126 N	85.9305 W	Isolated
Mine Pit 4	0.55 acres	32.4114 N	85.9293 W	Isolated
TOTAL	15.68 acres 1,578 feet			

Wetland 8 is approximately 5.27 acres. Twenty-five flags were used to delineate Wetland 8. The wetland is isolated and located entirely within the project boundaries. Wetland Determination Data Forms (Appendix C) were completed for this wetland (Data Point 801) and in the adjacent upland forest (Data Point 802). Cowardin classification for this wetland is as a broad-leaved deciduous forested system on saturated soils (PFO1B).

3.5.2 Non-Jurisdictional Ditches

There is one non-jurisdictional ditch (Ditch 3) located within the project boundaries. Ditch 3 begins at the south end of the Mine Pit 1 and runs 1,578 feet southeast to Mine Pit 3. The ditch is located adjacent to Wetland 6 but is separated by a berm that is 8-10 feet high. This ditch was used for process water during active mining on the site in the past.

3.5.3 Non-Jurisdictional Mine Pits

Mine Pit 2 is a non-jurisdictional, isolated mine pit located northwest of the Mine Pit 1 and entirely within the project boundaries. Mine Pit 2 is approximately 1.12 acres. It appears that it was isolated by road construction and no culverts were placed to allow water to exit the pit. This pit is visible on the 1985 Google Earth aerial.

Mine Pit 3 is a non-jurisdictional, isolated mine pit located south of Ditch 3 and is located entirely within the project boundaries. Mine Pit 3 is approximately 7.51 acres. This pit is visible on the 1985 Google Earth aerial.

Mine Pit 4 is a non-jurisdictional, isolated mine pit located southeast of Mine Pit 3 and is located entirely within the project boundaries. Mine Pit 4 is approximately 0.55 acres. This pit is visible on the 1985 Google Earth aerial.

4. PROTECTED SPECIES

The project site was evaluated for the presence or absence of appropriate habitat for federally listed species. A pedestrian survey of habitats was conducted throughout the site. On April 27, 2026, the U.S. Fish & Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) website (<https://ecos.fws.gov/ipac/>) identified six species as possible protected inhabitants of the project site (Table 4). IPaC does not identify any critical habitats on the site. No suitable habitat for the protected species occurs on or near the project site. No protected species were observed on or near the project site.

Table 4. IPaC Protected Species for the Segrest Farm site in Macon County, Alabama.

Common Name	Scientific Name	Federal Status
Tricolored Bat (mammal)	<i>Perimyotis subflavus</i>	Proposed Endangered
Whooping Crane (bird)	<i>Grus americana</i>	Experimental
Alligator Snapping Turtle (reptile)	<i>Macrochelys temminickii</i>	Proposed Threatened
Ovate Clubshell (clam)	<i>Pleurobema perovatum</i>	Endangered
Monarch Butterfly (insects)	<i>Danaus plexippus</i>	Proposed Threatened
American Chaffseed (plant)	<i>Schwalbea americana</i>	Endangered

The tricolor bat is a wide-ranging species found across the eastern and central United States (IPaC). During the winter, tricolor bats hibernate in caves or abandoned mines; however, in the south they are commonly found roosting in highway culverts. In the spring, summer, and fall they utilize wooded areas where they tend to roost among the leaves of live or recently dead hardwood trees; they have also been found roosting in Spanish moss, pine trees, and occasionally in human structures. Mature hardwood trees are present on the project site inside the boundaries

of Wetland 3, south of Stream 2, and east of Wetland 7. Tricolored bats are not known to occur in the project area.

An experimental population of whooping cranes was established in Florida in the late 1980s. This population has not expanded across the southeast. Cranes are not known to utilize the site and no whooping cranes were observed in the project area.

The alligator snapping turtle is a wide-ranging species found from the Apalachicola River basin in the east to the Trinity River basin in the west (ECOS). This is a highly aquatic species that only emerges from the water to lay eggs and occasionally to bask. The preferred habitat is in the slow moving, deep water of rivers, sloughs, oxbows, and canals or lakes associated with these riverine areas usually near woody or vegetative cover (Nature Serve Explorer). There are no suitable streams or permanent waters on the site; no suitable habitat occurs on the site and no alligator snapping turtles were observed.

The ovate clubshell occur in portions of the Mobile Bay drainage, including a reach of Chewacla Creek in Lee County and a reach of Choctafaula Creek near the Lee County and Macon County boundary. Chewacla Creek, between its confluence with Opintlocco Creek in Macon County and the Lee County Road 159 crossing (just south of Chewacla State Park), was designated as Critical Habitat (Federal Register 69:126, pp 40083-40171 document id: FR01JY04-24). Additionally, these mussels are generally found on stable gravel and sandy-gravel substrates in high quality lotic habitats (FR 58:58:50, pp14330-14340). The project site is not in the Chewacla Creek/Uphapee Creek watershed. The streams on the site do not provide suitable habitat for the listed species and no mussels of any species were observed on the site.

The monarch butterfly is a wide-ranging species found across the North American continent (Monarch Butterfly (*Danaus plexippus*) Species Status Assessment Report, version 2.3 December 2024). The eastern population is found east of the Rocky Mountains. The eastern population migrates from overwintering grounds in Mexico to Canada over two to five successive generations. Eggs are laid on milkweed host plants and the larvae feed for 9-18 days before pupating; pupation lasts 6-14 days. Adults feed on nectar producing flowers of all types. While monarch butterflies may cross over the site, they are transitory. No suitable habitat occurs on the site and no monarch butterflies were observed on the site.

The American chaffseed plant grows in acidic, sandy or peaty soils in open pine flatwoods, pitch pine lowland forest, seepage bogs, palustrine pine savannahs, and other grass and sedge dominated plant communities. It frequently grows in the ecotonal areas between peaty wetlands and xeric sandy soils. These plant communities and soil types do not occur on the site and no American chaffseed plants were observed on the site.

5. CONCLUSIONS

A wetland and stream evaluation for the Segrest Farm site in Macon County, Alabama revealed the following conclusions:

- Seven jurisdictional streams (7,722 feet) were identified within the project boundaries.
- Six jurisdictional wetlands (67.25 acres) were identified within the project boundaries.
- Two jurisdictional ditches (1,684 feet) were identified within the project boundaries.
- One jurisdictional mine pit (59.29 acres) was identified within the project boundaries.
- Two non-jurisdictional wetlands (7.72 acres) were identified within the project boundaries.
- One non-jurisdictional ditch (1,578 feet) was identified within the project boundaries.
- Three non-jurisdictional mine pits (9.18 acres) were identified within the project boundaries.
- No listed species and no appropriate habitat were observed on the site.

Appendix A

FIGURES

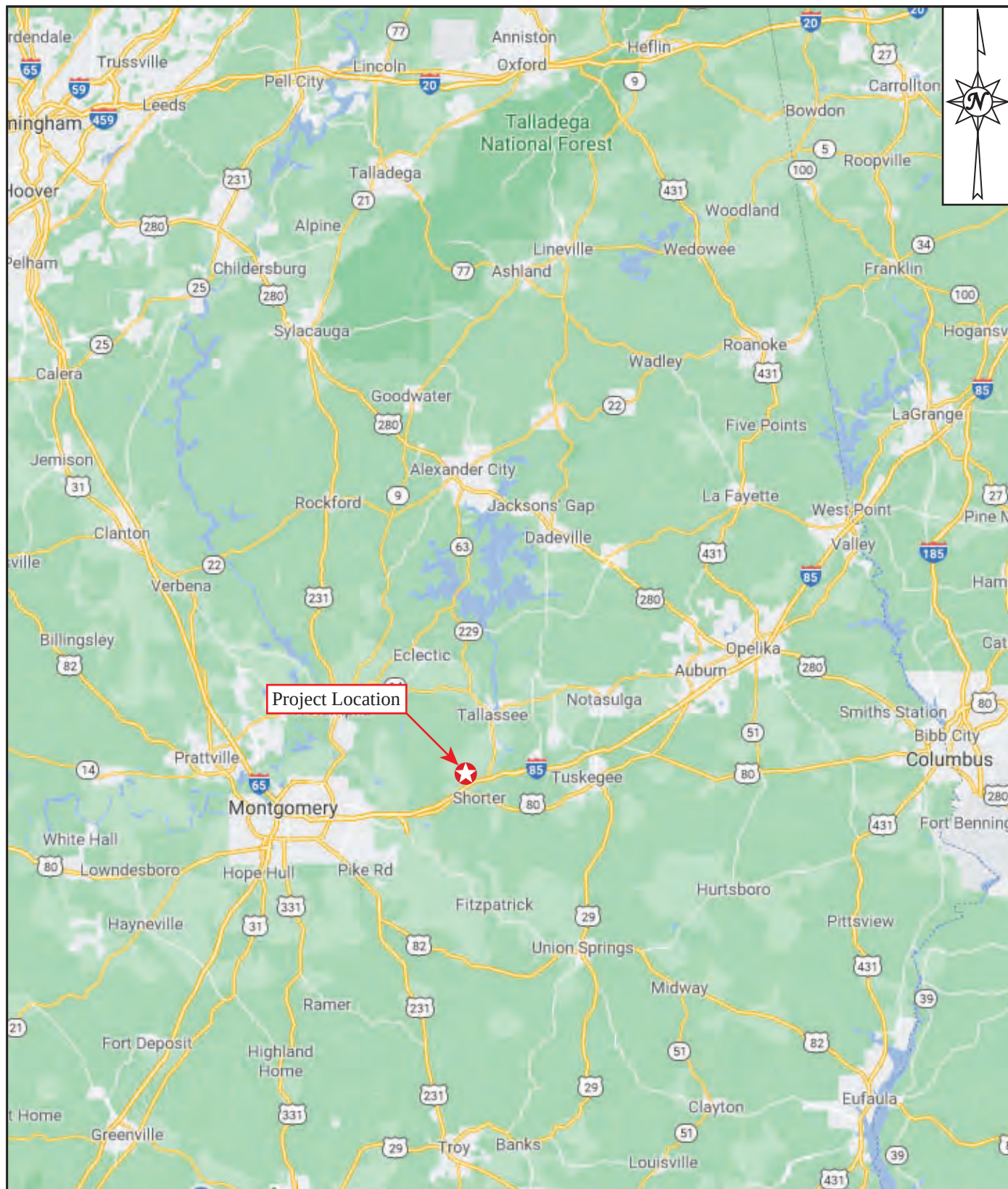


Figure 1: Vicinity Map
 Segrest Farm
 Shorter, Macon County, Alabama
 Source: Google Maps
 BioResources Project No. WL26-610
 Approximate Scale: 1" = 25 miles



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 Auburn, Alabama 36830

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www.bioresourcesllc.net

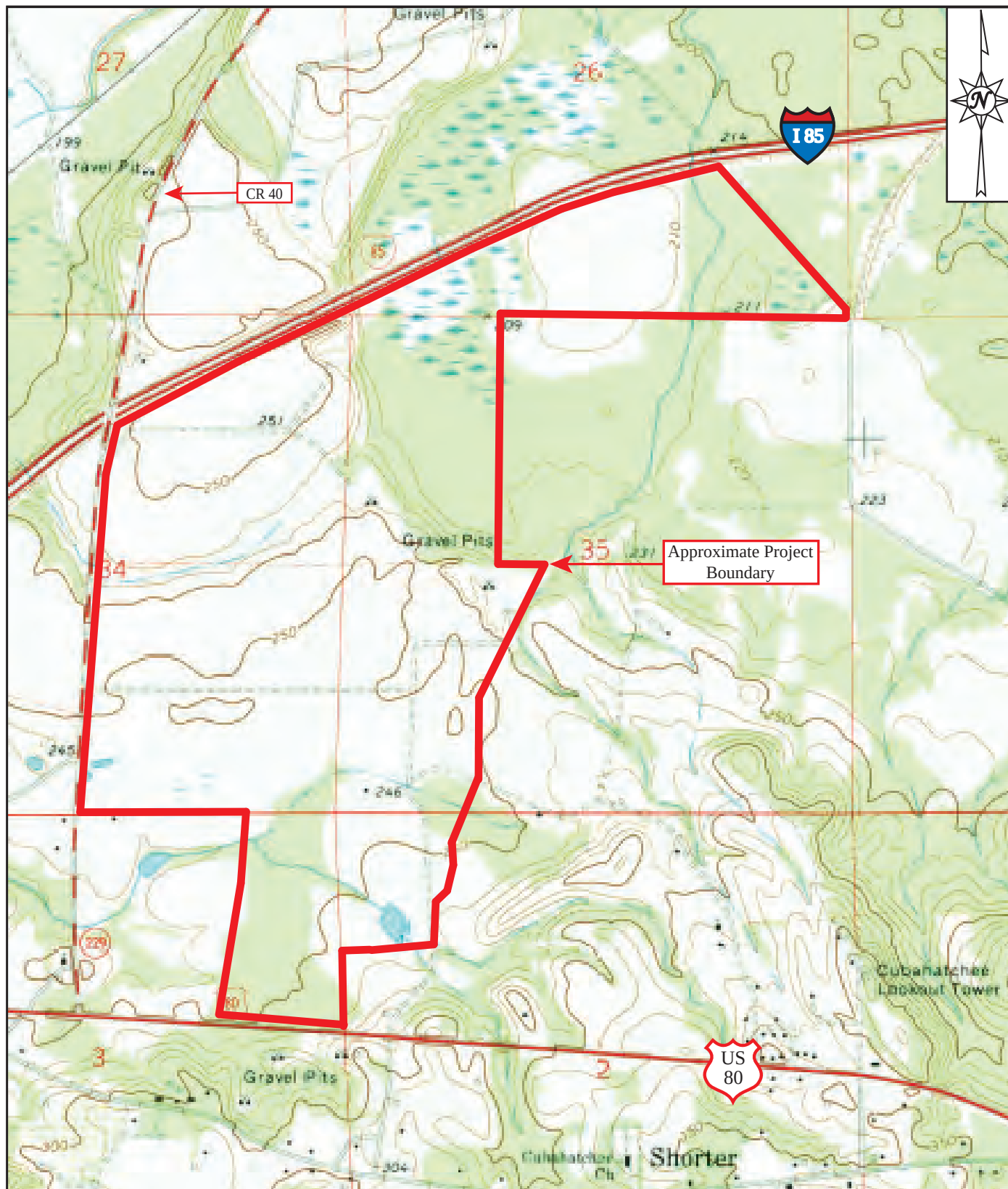
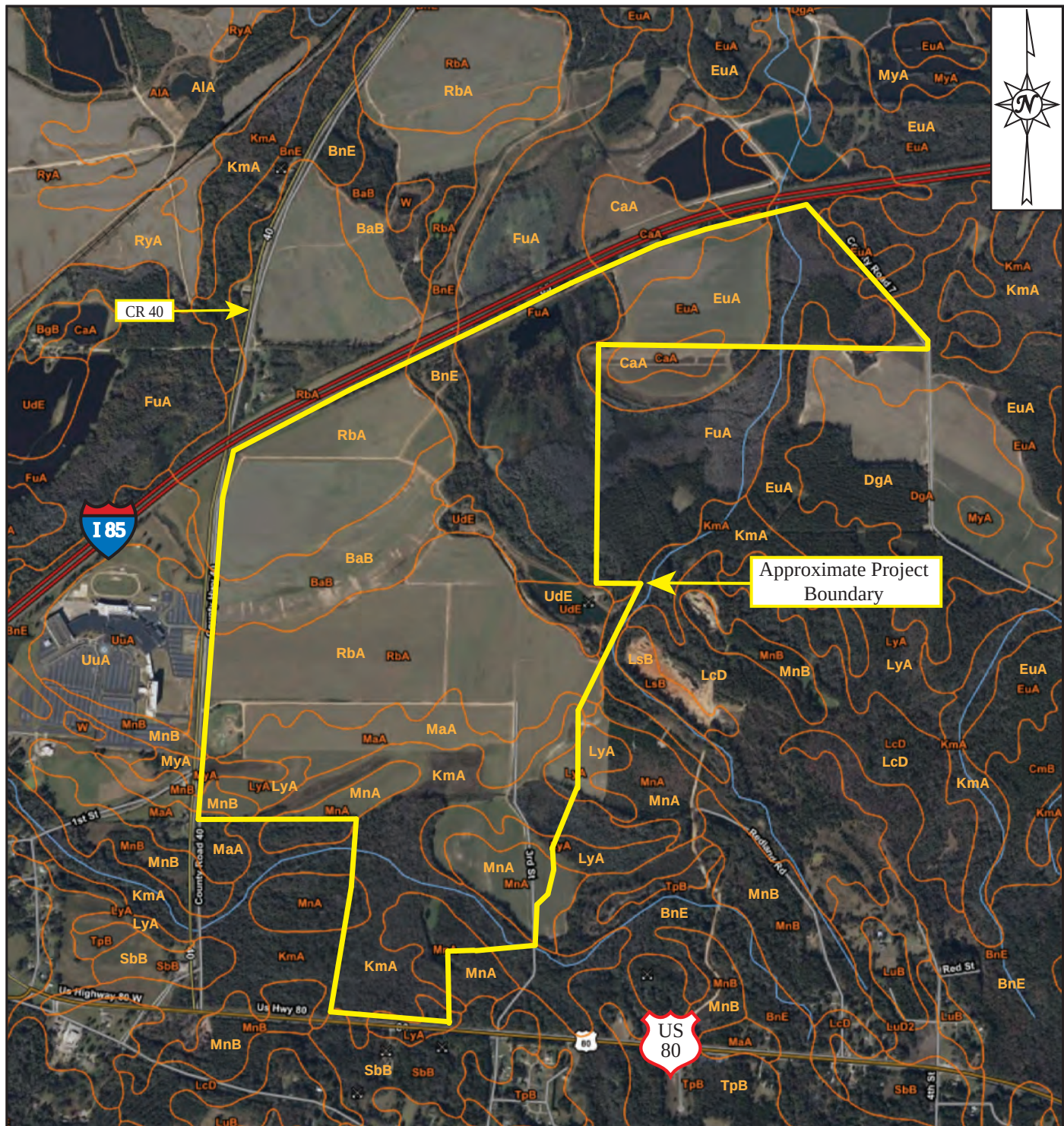


Figure 2: Site Location Map
 Segrest Farm
 Shorter, Macon County, Alabama
 Shorter, AL U.S.G.S. 7.5' Quad Map
 BioResources Project No. WL26-610
 Scale: 1" = 2,000'



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BaB - Bama fine sandy loam, 2-5% slopes
 BnE - Blanton-Luverne complex, 12-15% slopes
 CaA - Cahaba sandy loam, 0-2% slopes, rarely flooded
 EuA - Eunola sandy loam, 0-2% slopes, rarely flooded
 FuA - Fluvaquents silt loam, 0-1% slopes, frequently flooded
 KmA - Kinston-Mooreville complex, 0-1% slopes, frequently flooded
 LyA - Lynchburg fine sandy loam, 0-2% slopes, rarely flooded

MaA - Malbis fine sandy loam, 0-2% slopes
 MnB - Marvyn sandy loam, 0-2% slopes
 MnB - Marvyn sandy loam, 2-5% slopes
 MyA - Myatt loam, 0-1% slopes, rarely flooded
 RbA - Red Bay sandy loam, 0-2% slopes
 SbB - Springhill sandy loam, 2-5% slopes
 Ude - Udorthents, rough

Figure 3: Soils Map

Segrest Farm

Shorter, Macon County, Alabama

Source: NRCS Web Soil Survey

BioResources Project No. WL26-610

Approximate Scale: 1" = 1500'



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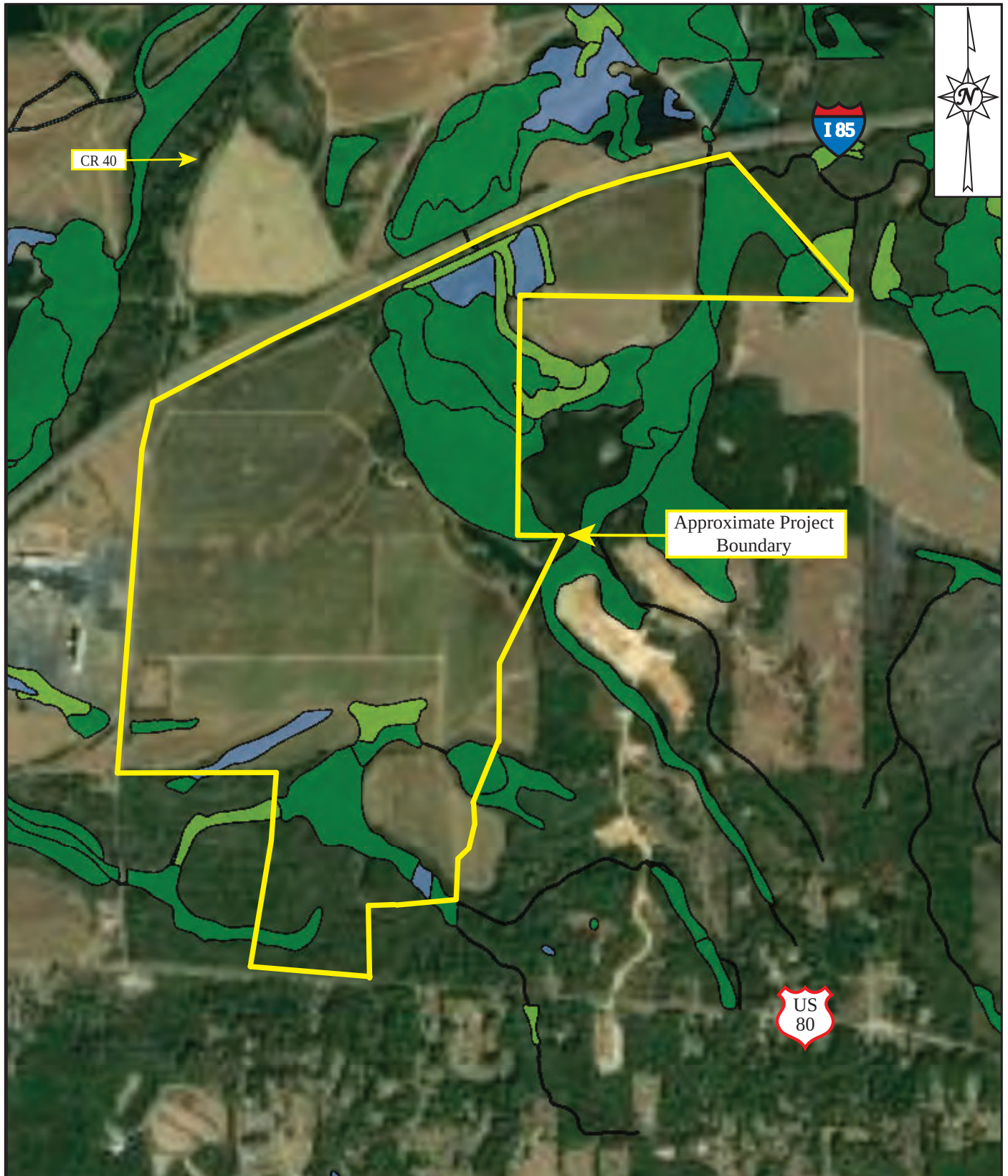


Figure 4: National Wetlands Inventory Map
Segrest Farm

Shorter, Macon County, Alabama

Source: USFWS Digital Wetland Mapper

BioResources Project No. WL26-610

Approximate Scale: 1" = 1500'

0 750 1500



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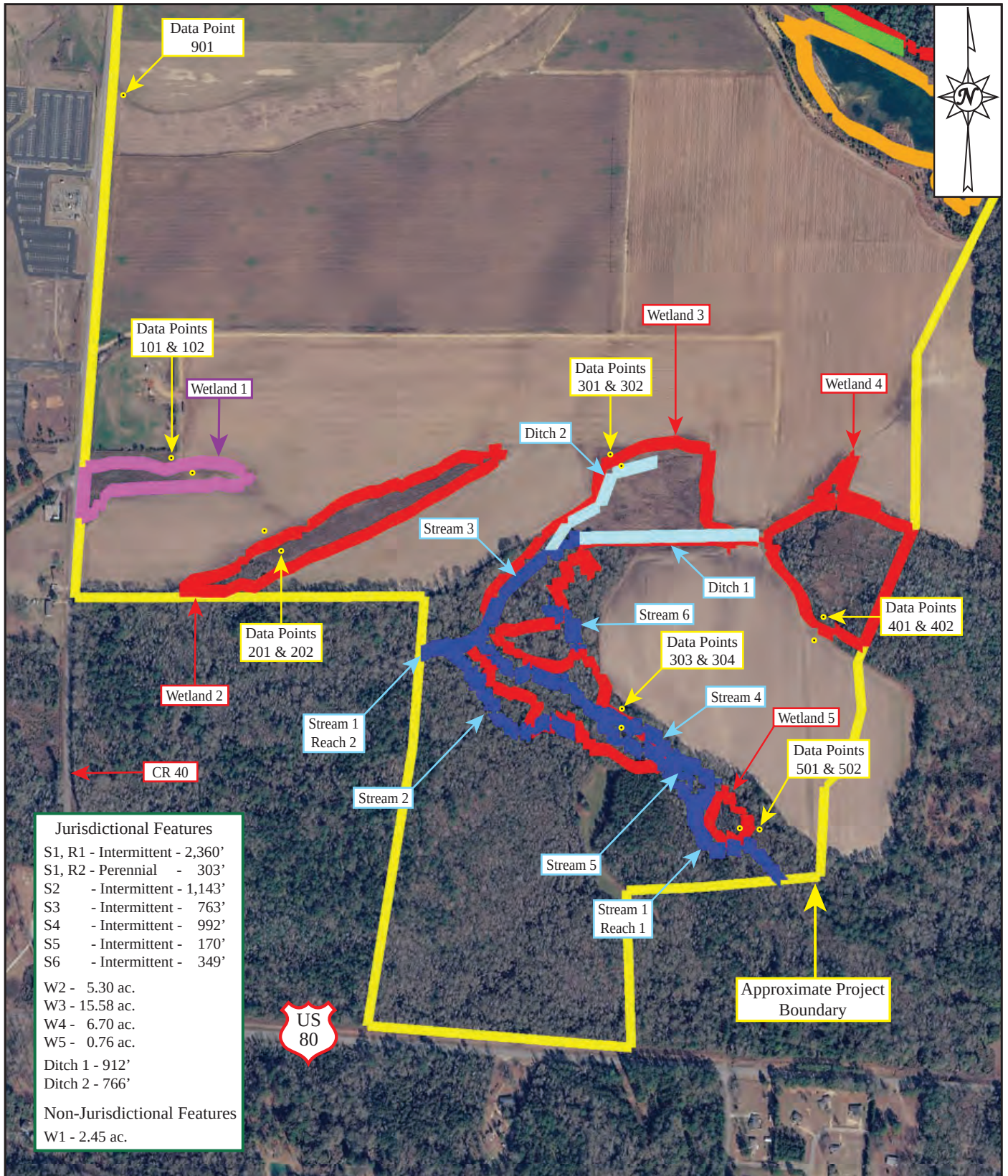


Figure 5A: 2024 Aerial Photograph - South Features

Segrest Farm

Shorter, Macon County, Alabama

Source: Google Earth 2026

BioResources Project No. WL26-610

Approximate Scale: 1" = 700'



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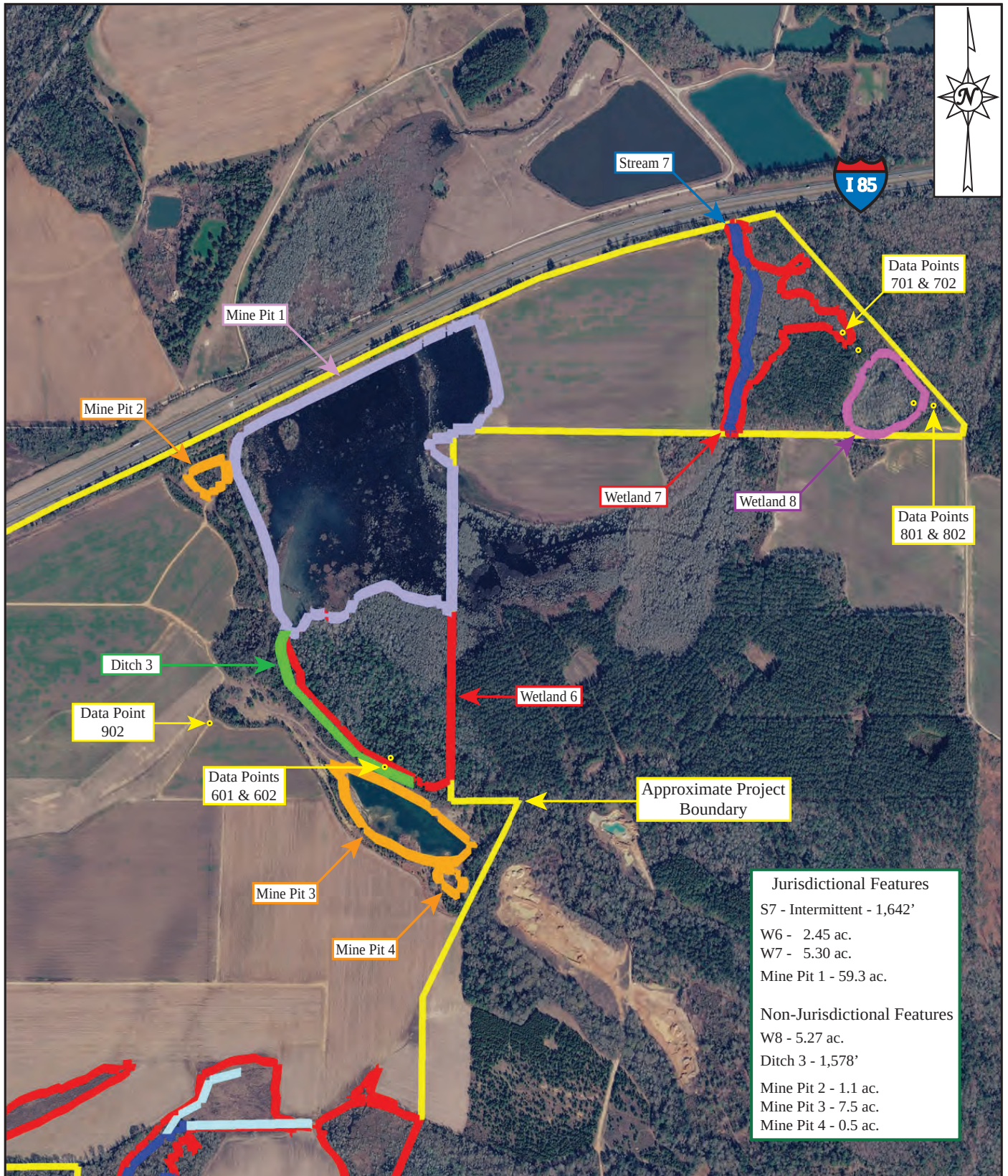


Figure 5B: 2024 Aerial Photograph - North Features

Segrest Farm

Shorter, Macon County, Alabama

Source: Google Earth 2026

BioResources Project No. WL26-610

Approximate Scale: 1" = 1000'



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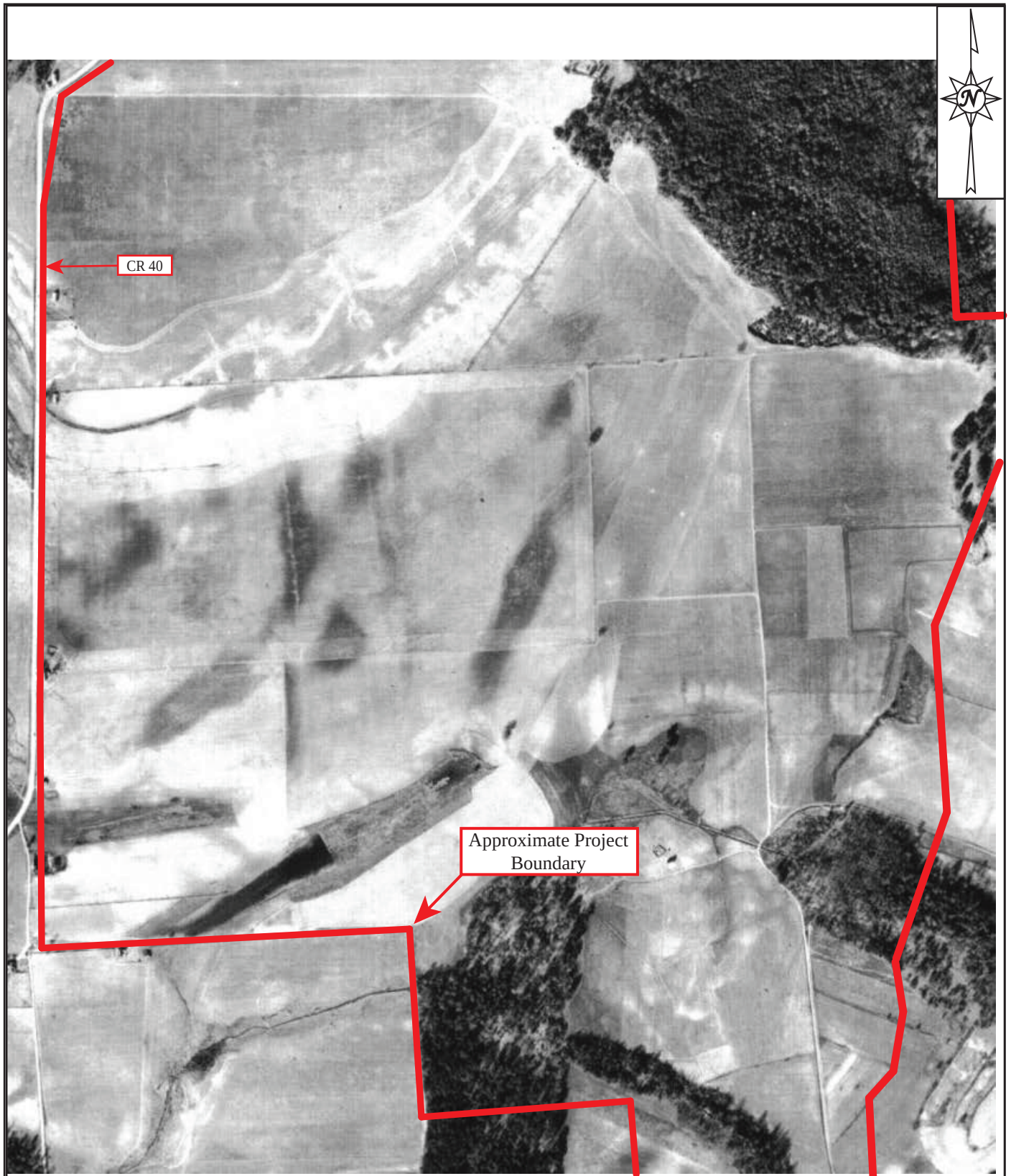


Figure 6: 1942 Aerial Photograph
 Segrest Farm
 Shorter, Macon County, Alabama
 Source: almaps.com
 BioResources Project No. WL26-610
 Approximate Scale: 1" = 800'



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Appendix B

PHOTOGRAPHS

Data Point 101
Wetland 1, Isolated
July 24, 2024



View to North



View to East



View to South



View to West

Data Point 102

Upland

July 24, 2024



View to North



View to East



View to South

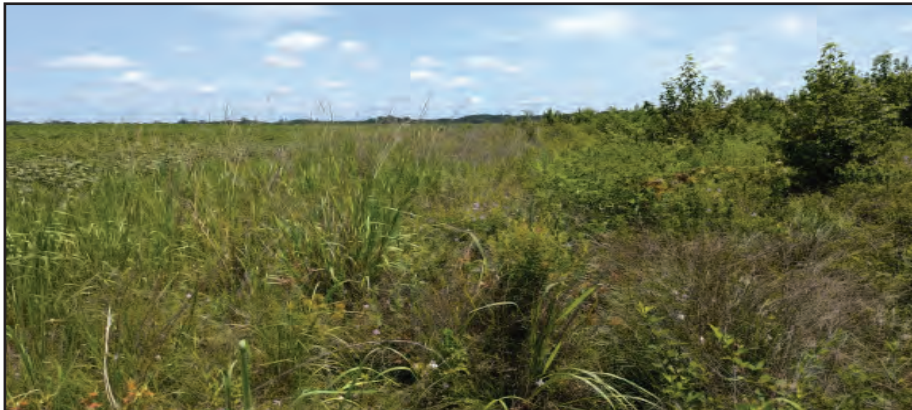


View to West

Data Point 201
Wetland 2
July 26, 2024



View to North



View to East



View to South



View to West

Data Point 202
Upland
July 26, 2024



View to North



View to East



View to South



View to West

Data Point 301

Wetland 3

July 25, 2024



View to North



View to East



View to South



View to West

Data Point 302

Upland

July 25, 2024



View to North



View to East



View to South



View to West

Data Point 303

Wetland 3

August 6, 2024



View to North



View to East



View to South



View to West

Data Point 304

Upland

August 6, 2024



View to North



View to East



View to South



View to West

Data Point 401

Wetland 4

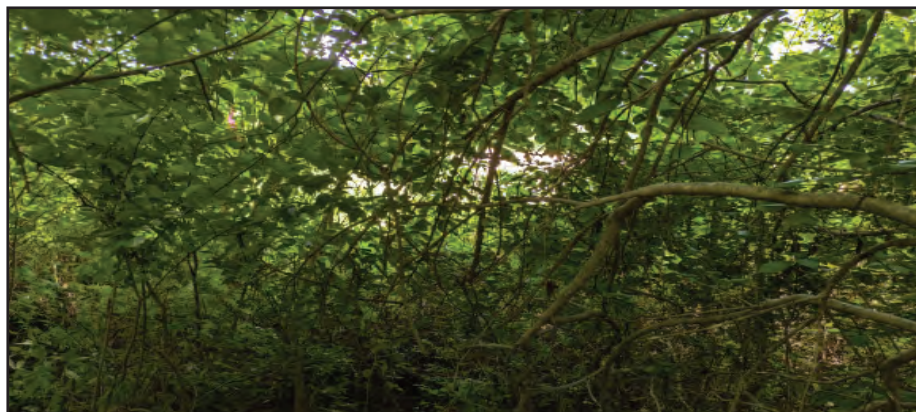
July 26, 2024



View to North



View to East



View to South



View to West

Data Point 402

Upland

July 26, 2024



View to North



View to East



View to South



View to West

Data Point 501

Wetland 5

August 2, 2024



View to North



View to East



View to South



View to West

Data Point 502

Upland

August 2, 2024



View to North



View to East



View to South



View to West

Data Point 601

Wetland 6

April 20, 2026



View to North



View to East



View to South



View to West

Data Point 602

Upland

April 20, 2026



View to North



View to East



View to South



View to West

Data Point 701

Wetland 7

April 17, 2026



View to North



View to East



View to South



View to West

Data Point 702

Upland

April 17, 2026



View to North



View to East



View to South



View to West

Data Point 801
Wetland 8, Isolated
March 2, 2026



View to North



View to East



View to South



View to West

Data Point 802

Upland

March 2, 2026



View to North



View to East



View to South



View to West

Data Point 901

Upland - Data point is located in a vegetated swale where the USGS map denotes in intermittent stream.

July 24, 2024



View to North



View to East



View to South



View to West

Data Point 902

Upland - Data point is located in a vegetated swale.

July 24, 2024



View to North



View to East



View to South



View to West

Stream 1, Reach 1
Intermittent
July 26, 2024



Looking upstream toward the Stream 4 confluence.



Looking downstream from near the Stream 4 confluence.

Stream 1, Reach 2

Perennial

August 2, 2024



Looking upstream from near the property line.



Looking downstream toward the property line.

Stream 2
Intermittent
August 2, 2024



Looking upstream from near the confluence with Reach 2 of Stream1.



Looking downstream from near the confluence with Reach 2 of Stream 1.

Stream 3
Intermittent
July 26, 2024



Looking upstream toward the end of Ditch 1.



Looking downstream from near the end of Ditch 1.

Stream 4
Intermittent
August 2, 2024



Looking upstream from where the stream enters Wetland 3.



Looking downstream from where the stream enters Wetland 3.

Stream 5
Intermittent
August 1, 2024



Looking upstream toward the head of the stream



Looking downstream from near the head of the stream.

Stream 6
Intermittent
July 26, 2024



Looking upstream from where the stream enters Wetland 3.



Looking downstream from where the stream enters Wetland 3.

Stream 7
Intermittent
April 20, 2026



Looking upstream from near the south property line.



Looking downstream from near the south property line.

Ditch 1
Located in Wetland 3
July 25, 2024



Looking up the ditch toward the culvert under the farm road.



Looking down the ditch from near the culvert under the farm road.

Ditch 3
Located between Mine Pit 1 & Mine Pit 3
April 20, 2026



Looking north along the ditch from near Mine Pit 3.



Looking south along the ditch from near Mine Pit 3.

Vegetated Swale near C.R. 40

Data Point 901

July 24, 2024



Looking west down the vegetated swale from the edge of the cornfield.



Looking east up the vegetated swale into the cornfield.

Vegetated Swale on NW Side of the Site

Data Point 902

July 24, 2024



Looking west up the vegetated swale into the cornfield from the farmroad.



Looking east down the vegetated swale, from the cornfield, toward the culvert under the farmroad.

Mine Pit 1
Jurisdictional
April 20, 2026



Looking southeast from the northwest corner of Mine Pit 1.



Looking east from near the abutting Wetland 6.

Mine Pit 3
Non-Jurisdictional, Isolated
April 20, 2026



Looking east from the west side of Mine Pit 3.

Appendix C

WETLAND DATA FORMS

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
--	---

Project/Site: <u>Project Lotus Site</u>	City/County: <u>Shorter / Macon</u>	Sampling Date: <u>7-24-2024</u>
Applicant/Owner: <u>DYCM Power, LLC</u>	State: <u>AL</u>	Sampling Point: <u>101</u>
Investigator(s): <u>Doug Dallas, Garth Crow; BioResources, LLC</u> Section, Township, Range: <u>S 34, T 17 N, R 21 E</u>		
Landform (hillside, terrace, etc.): <u>Bottom</u>	Local relief (concave, convex, none): <u>Concave</u>	Slope (%): <u>0-2%</u>
Subregion (LRR or MLRA): <u>LRR P</u>	Lat: <u>32.4073 N</u>	Long: <u>85.9240 W</u> Datum: <u>None</u>
Soil Map Unit Name: <u>MyA - Myatt loam, 0-1% slopes, rarely flooded</u>		NWI classification: <u>PFO1B</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>X</u> No <u> </u> (If no, explain in Remarks.)		
Are Vegetation <u>Y</u> , Soil <u>Y</u> , or Hydrology <u>Y</u> significantly disturbed? Are "Normal Circumstances" present? Yes <u> </u> No <u>X</u>		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic? (If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks: MLRA 133C is not in the drop down list. The data point is located in a drainage feature in an agricultural field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u> </u> Surface Water (A1) <u>X</u> High Water Table (A2) <u>X</u> Saturation (A3) <u> </u> Water Marks (B1) <u> </u> Sediment Deposits (B2) <u> </u> Drift Deposits (B3) <u> </u> Algal Mat or Crust (B4) <u> </u> Iron Deposits (B5) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Water-Stained Leaves (B9) <u> </u> Aquatic Fauna (B13) <u> </u> Marl Deposits (B15) (LRR U) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Thin Muck Surface (C7) <u> </u> Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> <u> </u> Surface Soil Cracks (B6) <u> </u> Sparsely Vegetated Concave Surface (B8) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u>X</u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u>X</u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) <u> </u> Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>3</u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 	
Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 101

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>----</u>				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>14</u></td> <td>x 1 = <u>14</u></td> </tr> <tr> <td>FACW species <u>60</u></td> <td>x 2 = <u>120</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>2</u></td> <td>x 4 = <u>8</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>86</u> (A)</td> <td><u>172</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>14</u>	x 1 = <u>14</u>	FACW species <u>60</u>	x 2 = <u>120</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>2</u>	x 4 = <u>8</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>86</u> (A)	<u>172</u> (B)	Prevalence Index = B/A = <u>2.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>14</u>	x 1 = <u>14</u>																			
FACW species <u>60</u>	x 2 = <u>120</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>2</u>	x 4 = <u>8</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>86</u> (A)	<u>172</u> (B)																			
Prevalence Index = B/A = <u>2.00</u>																				
2. <u>-----</u>																				
3. <u>-----</u>																				
4. <u>-----</u>																				
5. <u>-----</u>																				
6. <u>-----</u>																				
7. <u>-----</u>																				
8. <u>-----</u>																				
=Total Cover																				
50% of total cover: <u> </u>		20% of total cover: <u> </u>																		
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. <u>----</u>				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> X 2 - Dominance Test is >50% <u> </u> X 3 - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>-----</u>																				
3. <u>-----</u>																				
4. <u>-----</u>																				
5. <u>-----</u>																				
6. <u>-----</u>																				
7. <u>-----</u>																				
8. <u>-----</u>																				
=Total Cover																				
50% of total cover: <u> </u>		20% of total cover: <u> </u>																		
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Diodia virginiana</u>	50	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Carex lurida</u>	10	No	OBL																	
3. <u>Paspalum urvillei</u>	5	No	FAC																	
4. <u>Saccharum giganteum</u>	5	No	FACW																	
5. <u>Cyperus esculentus</u>	5	No	FAC																	
6. <u>Cyperus virens</u>	5	No	FACW																	
7. <u>Persicaria setacea</u>	2	No	OBL																	
8. <u>Juncus effusus</u>	2	No	OBL																	
9. <u>Solanum carolinense</u>	2	No	FACU																	
10. <u> </u>																				
11. <u> </u>																				
12. <u> </u>																				
86 =Total Cover																				
50% of total cover: <u>43</u>		20% of total cover: <u>18</u>																		
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. <u>-----</u>				Hydrophytic Vegetation Present? Yes <u> X </u> No <u> </u>																
2. <u>-----</u>																				
3. <u>-----</u>																				
4. <u>-----</u>																				
5. <u>-----</u>																				
=Total Cover																				
50% of total cover: <u> </u>		20% of total cover: <u> </u>																		

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 4/3						Loamy/Clayey	Sandy clay loam
4-16	10YR 4/2	75	7.5YR 4/6	25	C	PL	Loamy/Clayey	Prominent redox concentrations
								Sandy clay loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) ☐ Organic Bodies (A6) (LRR P, T, U) ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U) ☐ Muck Presence (A8) (LRR U) ☐ 1 cm Muck (A9) (LRR P, T) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Coast Prairie Redox (A16) (MLRA 150A) ☐ Sandy Mucky Mineral (S1) (LRR O, S) ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Dark Surface (S7) (LRR P, S, T, U) ☐ Polyvalue Below Surface (S8) ☐ (LRR S, T, U) ☐ Thin Dark Surface (S9) (LRR S, T, U) ☐ Barrier Islands 1 cm Muck (S12) ☐ (MLRA 153B, 153D) ☐ Loamy Mucky Mineral (F1) (LRR O) ☐ Loamy Gleyed Matrix (F2) ☒ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ Marl (F10) (LRR U) ☐ Depleted Ochric (F11) (MLRA 151) ☐ Iron-Manganese Masses (F12) (LRR O, P, T) ☐ Umbric Surface (F13) (LRR P, T, U) ☐ Delta Ochric (F17) (MLRA 151) ☐ Reduced Vertic (F18) (MLRA 150A, 150B) ☐ Piedmont Floodplain Soils (F19) (MLRA 149A) ☐ Anomalous Bright Floodplain Soils (F20) ☐ (MLRA 149A, 153C, 153D) ☐ Very Shallow Dark Surface (F22) ☐ (MLRA 138, 152A in FL, 154) Indicators for Problematic Hydric Soils³: ☐ 1 cm Muck (A9) (LRR O) ☐ 2 cm Muck (A10) (LRR S) ☐ Coast Prairie Redox (A16) ☐ (outside MLRA 150A) ☐ Reduced Vertic (F18) ☐ (outside MLRA 150A, 150B) ☐ Piedmont Floodplain Soils (F19) (LRR P, T) ☐ Anomalous Bright Floodplain Soils (F20) ☐ (MLRA 153B) ☐ Red Parent Material (F21) ☐ Very Shallow Dark Surface (F22) ☐ (outside MLRA 138, 152A in FL, 154) ☐ Barrier Islands Low Chroma Matrix (TS7) ☐ (MLRA 153B, 153D) ☐ Other (Explain in Remarks) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Restrictive Layer (if observed): Type: _____ Depth (inches): _____							Hydric Soil Present? Yes ☒ No ☐	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: <u>Project Lotus Site</u>	City/County: <u>Shorter / Macon</u>	Sampling Date: <u>7-24-2024</u>
Applicant/Owner: <u>DYCM Power, LLC</u>	State: <u>AL</u>	Sampling Point: <u>102</u>
Investigator(s): <u>Doug Dallas, Garth Crow; BioResources, LLC</u> Section, Township, Range: <u>S 34, T 17 N, R 21 E</u>		
Landform (hillside, terrace, etc.): <u>Hillslope</u>	Local relief (concave, convex, none): <u>None</u>	Slope (%): <u>2-4%</u>
Subregion (LRR or MLRA): <u>LRR P</u>	Lat: <u>32.4074 N</u>	Long: <u>85.9422 W</u> Datum: <u>None</u>
Soil Map Unit Name: <u>MaA - Malbis fine sandy loam, 0-2% slopes</u>		NWI classification: <u>Upland</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>X</u> No <u> </u> (If no, explain in Remarks.)		
Are Vegetation <u>Y</u> , Soil <u>Y</u> , or Hydrology <u>Y</u> significantly disturbed? Are "Normal Circumstances" present? Yes <u> </u> No <u>X</u>		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic? (If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: MLRA 133C is not in the drop down list. The data point is located adjacent to a drainage feature in an agricultural field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u> </u> Surface Water (A1) <u> </u> High Water Table (A2) <u> </u> Saturation (A3) <u> </u> Water Marks (B1) <u> </u> Sediment Deposits (B2) <u> </u> Drift Deposits (B3) <u> </u> Algal Mat or Crust (B4) <u> </u> Iron Deposits (B5) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Water-Stained Leaves (B9) <u> </u> Aquatic Fauna (B13) <u> </u> Marl Deposits (B15) (LRR U) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Thin Muck Surface (C7) <u> </u> Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> <u> </u> Surface Soil Cracks (B6) <u> </u> Sparsely Vegetated Concave Surface (B8) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> FAC-Neutral Test (D5) <u> </u> Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 	
Remarks: No indicators of wetland hydrology were observed.	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 102

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>----</u>				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. <u>-----</u>																				
3. <u>-----</u>																				
4. <u>-----</u>																				
5. <u>-----</u>																				
6. <u>-----</u>																				
7. <u>-----</u>																				
8. <u>-----</u>																				
			<u>92</u> = Total Cover	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>2</u></td> <td>x 1 = <u>2</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>55</u></td> <td>x 3 = <u>165</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>92</u> (A)</td> <td><u>297</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>3.23</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>2</u>	x 1 = <u>2</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>55</u>	x 3 = <u>165</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>92</u> (A)	<u>297</u> (B)	Prevalence Index = B/A = <u>3.23</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>2</u>	x 1 = <u>2</u>																			
FACW species <u>5</u>	x 2 = <u>10</u>																			
FAC species <u>55</u>	x 3 = <u>165</u>																			
FACU species <u>30</u>	x 4 = <u>120</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>92</u> (A)	<u>297</u> (B)																			
Prevalence Index = B/A = <u>3.23</u>																				
50% of total cover: <u>46</u>			20% of total cover: <u>19</u>																	
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. <u>----</u>																				
2. <u>-----</u>																				
3. <u>-----</u>																				
4. <u>-----</u>																				
5. <u>-----</u>																				
6. <u>-----</u>																				
7. <u>-----</u>																				
8. <u>-----</u>																				
			<u>92</u> = Total Cover																	
50% of total cover: <u>46</u>			20% of total cover: <u>19</u>																	
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Paspalum urvillei</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>																	
2. <u>Solidago altissima</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
3. <u>Plantago lanceolata</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
4. <u>Verbena bonariensis</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
5. <u>Boehmeria cylindrica</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
6. <u>Rubus trivialis</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
7. <u>Urochloa ramosa</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
8. <u>Persicaria setacea</u>	<u>2</u>	<u>No</u>	<u>OBL</u>																	
9. <u>-----</u>																				
10. <u>-----</u>																				
11. <u>-----</u>																				
12. <u>-----</u>																				
			<u>92</u> = Total Cover																	
50% of total cover: <u>46</u>			20% of total cover: <u>19</u>																	
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. <u>-----</u>																				
2. <u>-----</u>																				
3. <u>-----</u>																				
4. <u>-----</u>																				
5. <u>-----</u>																				
			<u>92</u> = Total Cover																	
50% of total cover: <u>46</u>			20% of total cover: <u>19</u>																	
Hydrophytic Vegetation Present?																				
Yes <u>X</u> No <u> </u>																				

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 3/4						Loamy/Clayey	Sandy clay loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) ☐ Organic Bodies (A6) (LRR P, T, U) ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U) ☐ Muck Presence (A8) (LRR U) ☐ 1 cm Muck (A9) (LRR P, T) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Coast Prairie Redox (A16) (MLRA 150A) ☐ Sandy Mucky Mineral (S1) (LRR O, S) ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Dark Surface (S7) (LRR P, S, T, U) ☐ Polyvalue Below Surface (S8) ☐ (LRR S, T, U) ☐ Thin Dark Surface (S9) (LRR S, T, U) ☐ Barrier Islands 1 cm Muck (S12) ☐ (MLRA 153B, 153D) ☐ Loamy Mucky Mineral (F1) (LRR O) ☐ Loamy Gleyed Matrix (F2) ☐ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ Marl (F10) (LRR U) ☐ Depleted Ochric (F11) (MLRA 151) ☐ Iron-Manganese Masses (F12) (LRR O, P, T) ☐ Umbric Surface (F13) (LRR P, T, U) ☐ Delta Ochric (F17) (MLRA 151) ☐ Reduced Vertic (F18) (MLRA 150A, 150B) ☐ Piedmont Floodplain Soils (F19) (MLRA 149A) ☐ Anomalous Bright Floodplain Soils (F20) ☐ (MLRA 149A, 153C, 153D) ☐ Very Shallow Dark Surface (F22) ☐ (MLRA 138, 152A in FL, 154) Indicators for Problematic Hydric Soils³: ☐ 1 cm Muck (A9) (LRR O) ☐ 2 cm Muck (A10) (LRR S) ☐ Coast Prairie Redox (A16) ☐ (outside MLRA 150A) ☐ Reduced Vertic (F18) ☐ (outside MLRA 150A, 150B) ☐ Piedmont Floodplain Soils (F19) (LRR P, T) ☐ Anomalous Bright Floodplain Soils (F20) ☐ (MLRA 153B) ☐ Red Parent Material (F21) ☐ Very Shallow Dark Surface (F22) ☐ (outside MLRA 138, 152A in FL, 154) ☐ Barrier Islands Low Chroma Matrix (TS7) ☐ (MLRA 153B, 153D) ☐ Other (Explain in Remarks) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Restrictive Layer (if observed): Type: _____ Depth (inches): _____							Hydric Soil Present? Yes _____ No <u> X </u>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	<i>OMB Control #: 0710-0024, Exp: 11/30/2024</i> <i>Requirement Control Symbol EXEMPT:</i> <i>(Authority: AR 335-15, paragraph 5-2a)</i>
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Project/Site: <u>Project Lotus Site</u>	City/County: <u>Shorter / Macon</u>	Sampling Date: <u>7-24-2024</u>
Applicant/Owner: <u>DYCM Power, LLC</u>	State: <u>AL</u>	Sampling Point: <u>201</u>
Investigator(s): <u>Doug Dallas, Garth Crow; BioResources LLC</u> Section, Township, Range: <u>S 34, T 17 N, R 21 E</u>		
Landform (hillside, terrace, etc.): <u>Bottom</u>	Local relief (concave, convex, none): <u>Concave</u>	Slope (%): <u>0-2%</u>
Subregion (LRR or MLRA): <u>LRR P</u>	Lat: <u>32.4065 N</u>	Long: <u>85.9405 W</u> Datum: <u>None</u>
Soil Map Unit Name: <u>KmA - Kinston-Moorville complex, 0-1% slopes, frequently flooded</u>		NWI classification: <u>PFO1B</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>X</u> No <u> </u> (If no, explain in Remarks.)		
Are Vegetation <u>Y</u> , Soil <u>Y</u> , or Hydrology <u>Y</u> significantly disturbed? Are "Normal Circumstances" present? Yes <u> </u> No <u>X</u>		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic? (If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks: MLRA 133C is not in the drop down list. The data point is located on the edge of an active agricultural field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u> </u> Surface Water (A1) <u>X</u> High Water Table (A2) <u>X</u> Saturation (A3) <u> </u> Water Marks (B1) <u> </u> Sediment Deposits (B2) <u> </u> Drift Deposits (B3) <u> </u> Algal Mat or Crust (B4) <u> </u> Iron Deposits (B5) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Water-Stained Leaves (B9) <u> </u> Aquatic Fauna (B13) <u> </u> Marl Deposits (B15) (LRR U) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Thin Muck Surface (C7) <u> </u> Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
 Surface Soil Cracks (B6)
 Sparsely Vegetated Concave Surface (B8)
 Drainage Patterns (B10)
 Moss Trim Lines (B16)
 Dry-Season Water Table (C2)
X Crayfish Burrows (C8)
 Saturation Visible on Aerial Imagery (C9)
X Geomorphic Position (D2)
 Shallow Aquitard (D3)
X FAC-Neutral Test (D5)
 Sphagnum Moss (D8) **(LRR T, U)**

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>4</u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 201

<u>Tree Stratum</u> (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>----</u>			
2. <u>-----</u>			
3. <u>-----</u>			
4. <u>-----</u>			
5. <u>-----</u>			
6. <u>-----</u>			
7. <u>-----</u>			
8. <u>-----</u>			

=Total Cover

 50% of total cover: 20% of total cover:

<u>Sapling/Shrub Stratum</u> (Plot size: <u>25'</u>)			
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Triadica sebifera</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
3. <u>Liquidambar styraciflua</u>	<u>2</u>	<u>No</u>	<u>FAC</u>
4. <u>Betula nigra</u>	<u>1</u>	<u>No</u>	<u>FACW</u>
5. <u>Acer rubrum</u>	<u>1</u>	<u>No</u>	<u>FAC</u>
6. <u>-----</u>			
7. <u>-----</u>			
8. <u>-----</u>			

=Total Cover

 50% of total cover: 7 20% of total cover: 3

<u>Herb Stratum</u> (Plot size: <u>10'</u>)			
1. <u>Juncus effusus</u>	<u>25</u>	<u>Yes</u>	<u>OBL</u>
2. <u>Paspalum urvillei</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>
3. <u>Rubus argutus</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>
4. <u>Rhexia virginica</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>
5. <u>Cyperus esculentus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
6. <u>Dichanthelium dichotomum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
7. <u>Boehmeria cylindrica</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
8. <u>Persicaria setacea</u>	<u>3</u>	<u>No</u>	<u>OBL</u>
9. <u>Setaria pumila</u>	<u>2</u>	<u>No</u>	<u>FAC</u>
10. <u>-----</u>			
11. <u>-----</u>			
12. <u>-----</u>			

=Total Cover

 50% of total cover: 45 20% of total cover: 18

<u>Woody Vine Stratum</u> (Plot size: <u>25'</u>)			
1. <u>-----</u>			
2. <u>-----</u>			
3. <u>-----</u>			
4. <u>-----</u>			
5. <u>-----</u>			

=Total Cover

 50% of total cover: 20% of total cover:
Dominance Test worksheet:

 Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

 Total Number of Dominant Species Across All Strata: 6 (B)

 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>28</u>	x 1 = <u>28</u>
FACW species <u>26</u>	x 2 = <u>52</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>104</u> (A)	<u>230</u> (B)
Prevalence Index = B/A = <u>2.21</u>	

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
☒ 2 - Dominance Test is >50%
☒ 3 - Prevalence Index is ≤3.0¹
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:
Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

 Yes X No

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/2						Loamy/Clayey	Sandy Clay Loam
1-9	10YR 3/2	95	7.5YR 4/6	5	C	PL	Loamy/Clayey	Sandy Clay Loam
9-16	10YR 4/1	95	7.5YR 4/6	5	C	PL	Loamy/Clayey	Sandy Clay Loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						Indicators for Problematic Hydric Soils³:		
☐ Histosol (A1)			☐ Thin Dark Surface (S9) (LRR S, T, U)			☐ 1 cm Muck (A9) (LRR O)		
☐ Histic Epipedon (A2)			☐ Barrier Islands 1 cm Muck (S12)			☐ 2 cm Muck (A10) (LRR S)		
☐ Black Histic (A3)			(MLRA 153B, 153D)			☐ Coast Prairie Redox (A16)		
☐ Hydrogen Sulfide (A4)			☐ Loamy Mucky Mineral (F1) (LRR O)			(outside MLRA 150A)		
☐ Stratified Layers (A5)			☐ Loamy Gleyed Matrix (F2)			☐ Reduced Vertic (F18)		
☐ Organic Bodies (A6) (LRR P, T, U)			☒ Depleted Matrix (F3)			(outside MLRA 150A, 150B)		
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)			☒ Redox Dark Surface (F6)			☐ Piedmont Floodplain Soils (F19) (LRR P, T)		
☐ Muck Presence (A8) (LRR U)			☐ Depleted Dark Surface (F7)			☐ Anomalous Bright Floodplain Soils (F20)		
☐ 1 cm Muck (A9) (LRR P, T)			☐ Redox Depressions (F8)			(MLRA 153B)		
☒ Depleted Below Dark Surface (A11)			☐ Marl (F10) (LRR U)			☐ Red Parent Material (F21)		
☐ Thick Dark Surface (A12)			☐ Depleted Ochric (F11) (MLRA 151)			☐ Very Shallow Dark Surface (F22)		
☐ Coast Prairie Redox (A16) (MLRA 150A)			☐ Iron-Manganese Masses (F12) (LRR O, P, T)			(outside MLRA 138, 152A in FL, 154)		
☐ Sandy Mucky Mineral (S1) (LRR O, S)			☐ Umbric Surface (F13) (LRR P, T, U)			☐ Barrier Islands Low Chroma Matrix (TS7)		
☐ Sandy Gleyed Matrix (S4)			☐ Delta Ochric (F17) (MLRA 151)			(MLRA 153B, 153D)		
☐ Sandy Redox (S5)			☐ Reduced Vertic (F18) (MLRA 150A, 150B)			☐ Other (Explain in Remarks)		
☐ Stripped Matrix (S6)			☐ Piedmont Floodplain Soils (F19) (MLRA 149A)					
☐ Dark Surface (S7) (LRR P, S, T, U)			☐ Anomalous Bright Floodplain Soils (F20)					
☐ Polyvalue Below Surface (S8)			(MLRA 149A, 153C, 153D)					
(LRR S, T, U)			☐ Very Shallow Dark Surface (F22)					
			(MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes ☒ No _____		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Project Lotus Site City/County: Shorter / Macon Sampling Date: 7-26-2024

Applicant/Owner: DYCM Power, LLC State: AL Sampling Point: 202

Investigator(s): Doug Dallas, Garth Crow; BioResources LLC Section, Township, Range: S 34, T 17 N, R 21 E

Landform (hillside, terrace, etc.): Hillside Local relief (concave, convex, none): None Slope (%): 0-2%

Subregion (LRR or MLRA): LRR P Lat: 32.4066 N Long: 85.9406 W Datum: None

Soil Map Unit Name: KmA -Kinstom-Mooreville complex, 0-1% slopes, frequently flooded NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation Y, Soil Y, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes No X

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: MLRA 133C is not in the drop down list. The data point is located in an active agricultural field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u> </u> Surface Water (A1) <u> </u> High Water Table (A2) <u> </u> Saturation (A3) <u> </u> Water Marks (B1) <u> </u> Sediment Deposits (B2) <u> </u> Drift Deposits (B3) <u> </u> Algal Mat or Crust (B4) <u> </u> Iron Deposits (B5) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Water-Stained Leaves (B9) <u> </u> Aquatic Fauna (B13) <u> </u> Marl Deposits (B15) (LRR U) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Thin Muck Surface (C7) <u> </u> Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> <u> </u> Surface Soil Cracks (B6) <u> </u> Sparsely Vegetated Concave Surface (B8) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> FAC-Neutral Test (D5) <u> </u> Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 	
Remarks: No indicators of wetland hydrology were observed.	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 202

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. -----				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>65</u></td> <td>x 4 = <u>260</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>65</u> (A)</td> <td><u>260</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>65</u>	x 4 = <u>260</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>65</u> (A)	<u>260</u> (B)	Prevalence Index = B/A = <u>4.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>65</u>	x 4 = <u>260</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>65</u> (A)	<u>260</u> (B)																			
Prevalence Index = B/A = <u>4.00</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
_____ = Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. -----				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
_____ = Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Gossypium hirsutum</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Digitaria sanguinalis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
3. <u>Eleusine indica</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
_____ = Total Cover																				
50% of total cover: <u>33</u>		20% of total cover: <u>13</u>																		
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. -----				Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>																
2. _____																				
3. _____																				
4. _____																				
5. _____																				
_____ = Total Cover																				
50% of total cover: _____		20% of total cover: _____																		

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 202

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2						Loamy/Clayey	Sandy clay loam
2-10	10YR 3/3	85	7.5YR 4/6	15	C	PL	Loamy/Clayey	Sandy clay loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.							² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							Indicators for Problematic Hydric Soils³:	
☐ Histosol (A1)			☐ Thin Dark Surface (S9) (LRR S, T, U)				☐ 1 cm Muck (A9) (LRR O)	
☐ Histic Epipedon (A2)			☐ Barrier Islands 1 cm Muck (S12)				☐ 2 cm Muck (A10) (LRR S)	
☐ Black Histic (A3)			☐ (MLRA 153B, 153D)				☐ Coast Prairie Redox (A16)	
☐ Hydrogen Sulfide (A4)			☐ Loamy Mucky Mineral (F1) (LRR O)				☐ (outside MLRA 150A)	
☐ Stratified Layers (A5)			☐ Loamy Gleyed Matrix (F2)				☐ Reduced Vertic (F18)	
☐ Organic Bodies (A6) (LRR P, T, U)			☐ Depleted Matrix (F3)				☐ (outside MLRA 150A, 150B)	
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)			☐ Redox Dark Surface (F6)				☐ Piedmont Floodplain Soils (F19) (LRR P, T)	
☐ Muck Presence (A8) (LRR U)			☐ Depleted Dark Surface (F7)				☐ Anomalous Bright Floodplain Soils (F20)	
☐ 1 cm Muck (A9) (LRR P, T)			☐ Redox Depressions (F8)				☐ (MLRA 153B)	
☐ Depleted Below Dark Surface (A11)			☐ Marl (F10) (LRR U)				☐ Red Parent Material (F21)	
☐ Thick Dark Surface (A12)			☐ Depleted Ochric (F11) (MLRA 151)				☐ Very Shallow Dark Surface (F22)	
☐ Coast Prairie Redox (A16) (MLRA 150A)			☐ Iron-Manganese Masses (F12) (LRR O, P, T)				☐ (outside MLRA 138, 152A in FL, 154)	
☐ Sandy Mucky Mineral (S1) (LRR O, S)			☐ Umbric Surface (F13) (LRR P, T, U)				☐ Barrier Islands Low Chroma Matrix (TS7)	
☐ Sandy Gleyed Matrix (S4)			☐ Delta Ochric (F17) (MLRA 151)				☐ (MLRA 153B, 153D)	
☐ Sandy Redox (S5)			☐ Reduced Vertic (F18) (MLRA 150A, 150B)				☐ Other (Explain in Remarks)	
☐ Stripped Matrix (S6)			☐ Piedmont Floodplain Soils (F19) (MLRA 149A)				³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	
☐ Dark Surface (S7) (LRR P, S, T, U)			☐ Anomalous Bright Floodplain Soils (F20)					
☐ Polyvalue Below Surface (S8)			☐ (MLRA 149A, 153C, 153D)					
☐ (LRR S, T, U)			☐ Very Shallow Dark Surface (F22)					
☐ (MLRA 138, 152A in FL, 154)								
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes _____ No <u> X </u>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	<i>OMB Control #: 0710-0024, Exp: 11/30/2024</i> <i>Requirement Control Symbol EXEMPT:</i> <i>(Authority: AR 335-15, paragraph 5-2a)</i>
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Project/Site: <u>Project Lotus Site</u>	City/County: <u>Shorter / Macon</u>	Sampling Date: <u>7-24-2024</u>
Applicant/Owner: <u>DYCM Power, LLC</u>	State: <u>AL</u>	Sampling Point: <u>301</u>
Investigator(s): <u>Doug Dallas, Garth Crow; BioResources LLC</u>	Section, Township, Range: <u>S 35, T 17 N, R 21 E</u>	
Landform (hillside, terrace, etc.): <u>Bottom</u>	Local relief (concave, convex, none): <u>Concave</u>	Slope (%): <u>0-2%</u>
Subregion (LRR or MLRA): <u>LRR P</u>	Lat: <u>32.4076 N</u>	Long: <u>85.9349 W</u>
Datum: <u>None</u>		
Soil Map Unit Name: <u>KmA - Kinston-Moorville complex, 0-1% slopes, frequently flooded</u>	NW1 classification: <u>PFO1B</u>	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>X</u> No <u> </u> (If no, explain in Remarks.)		
Are Vegetation <u>Y</u> , Soil <u>Y</u> , or Hydrology <u>Y</u> significantly disturbed? Are "Normal Circumstances" present? Yes <u> </u> No <u>X</u>		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic? (If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks: MLRA 133C is not in the drop down list. The data point is located on the edge of an active agricultural field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u> </u> Surface Water (A1) <u>X</u> High Water Table (A2) <u>X</u> Saturation (A3) <u> </u> Water Marks (B1) <u> </u> Sediment Deposits (B2) <u> </u> Drift Deposits (B3) <u> </u> Algal Mat or Crust (B4) <u> </u> Iron Deposits (B5) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Water-Stained Leaves (B9) <u> </u> Aquatic Fauna (B13) <u> </u> Marl Deposits (B15) (LRR U) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Thin Muck Surface (C7) <u> </u> Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> <u> </u> Surface Soil Cracks (B6) <u> </u> Sparsely Vegetated Concave Surface (B8) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u>X</u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u>X</u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) <u> </u> Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>4</u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 301

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>----</u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>

 = Total Cover

 50% of total cover: 20% of total cover:

Sapling/Shrub Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Cephalanthus occidentalis</u>	<u>25</u>	<u>Yes</u>	<u>OBL</u>
2. <u>Sambucus nigra</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
3. <u>Liquidambar styraciflua</u>	<u>2</u>	<u>No</u>	<u>FAC</u>
4. <u>Triadica sebifera</u>	<u>2</u>	<u>No</u>	<u>FAC</u>
5. <u>Diospyros virginiana</u>	<u>1</u>	<u>No</u>	<u>FAC</u>
6. <u>Carya illinoensis</u>	<u>1</u>	<u>No</u>	<u>FACU</u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>

36 = Total Cover

 50% of total cover: 18 20% of total cover: 8

Herb Stratum (Plot size: <u>10'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Rhexia virginica</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Rubus argutus</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>
3. <u>Persicaria setacea</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>
4. <u>Juncus effusus</u>	<u>10</u>	<u>No</u>	<u>OBL</u>
5. <u>Dichanthelium dichotomum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
6. <u>Solanum carolinense</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
7. <u>Apios americana</u>	<u>2</u>	<u>No</u>	<u>FACW</u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>
12. <u> </u>	<u> </u>	<u> </u>	<u> </u>

87 = Total Cover

 50% of total cover: 44 20% of total cover: 18

Woody Vine Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Campsis radicans</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>
2. <u>Ampelopsis arborea</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>

30 = Total Cover

 50% of total cover: 15 20% of total cover: 6
Dominance Test worksheet:

 Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

 Total Number of Dominant Species Across All Strata: 6 (B)

 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>55</u>	x 1 = <u>55</u>
FACW species <u>32</u>	x 2 = <u>64</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>6</u>	x 4 = <u>24</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>153</u> (A)	<u>323</u> (B)
Prevalence Index = B/A = <u>2.11</u>	

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0¹
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:
Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

**Hydrophytic
Vegetation
Present?**

 Yes X No

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/2						Loamy/Clayey	Silty clay loam
1-4	10YR 4/2						Loamy/Clayey	Sandy Clay Loam
4-9	10YR 3/2	90	7.5YR 5/8	10	C	PL	Loamy/Clayey	Sandy Clay Loam
9-16	10YR 3/1	90	7.5YR 5/8	10	C	PL	Loamy/Clayey	Sandy Clay Loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Thin Dark Surface (S9) (LRR S, T, U)	☐ 1 cm Muck (A9) (LRR O)
☐ Histic Epipedon (A2)	☐ Barrier Islands 1 cm Muck (S12)	☐ 2 cm Muck (A10) (LRR S)
☐ Black Histic (A3)	☐ (MLRA 153B, 153D)	☐ Coast Prairie Redox (A16)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (LRR O)	☐ (outside MLRA 150A)
☐ Stratified Layers (A5)	☐ Loamy Gleyed Matrix (F2)	☐ Reduced Vertic (F18)
☐ Organic Bodies (A6) (LRR P, T, U)	☐ Depleted Matrix (F3)	☐ (outside MLRA 150A, 150B)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)	☒ Redox Dark Surface (F6)	☐ Piedmont Floodplain Soils (F19) (LRR P, T)
☐ Muck Presence (A8) (LRR U)	☐ Depleted Dark Surface (F7)	☐ Anomalous Bright Floodplain Soils (F20)
☐ 1 cm Muck (A9) (LRR P, T)	☐ Redox Depressions (F8)	☐ (MLRA 153B)
☐ Depleted Below Dark Surface (A11)	☐ Marl (F10) (LRR U)	☐ Red Parent Material (F21)
☐ Thick Dark Surface (A12)	☐ Depleted Ochric (F11) (MLRA 151)	☐ Very Shallow Dark Surface (F22)
☐ Coast Prairie Redox (A16) (MLRA 150A)	☐ Iron-Manganese Masses (F12) (LRR O, P, T)	☐ (outside MLRA 138, 152A in FL, 154)
☐ Sandy Mucky Mineral (S1) (LRR O, S)	☐ Umbric Surface (F13) (LRR P, T, U)	☐ Barrier Islands Low Chroma Matrix (TS7)
☐ Sandy Gleyed Matrix (S4)	☐ Delta Ochric (F17) (MLRA 151)	☐ (MLRA 153B, 153D)
☐ Sandy Redox (S5)	☐ Reduced Vertic (F18) (MLRA 150A, 150B)	☐ Other (Explain in Remarks)
☐ Stripped Matrix (S6)	☐ Piedmont Floodplain Soils (F19) (MLRA 149A)	
☐ Dark Surface (S7) (LRR P, S, T, U)	☐ Anomalous Bright Floodplain Soils (F20)	
☐ Polyvalue Below Surface (S8)	☐ (MLRA 149A, 153C, 153D)	
☐ (LRR S, T, U)	☐ Very Shallow Dark Surface (F22)	
	☐ (MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No ☐
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Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 302

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>-----</u>				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>4</u></td> <td>x 2 = <u>8</u></td> </tr> <tr> <td>FAC species <u>101</u></td> <td>x 3 = <u>303</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>331</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>3.01</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>4</u>	x 2 = <u>8</u>	FAC species <u>101</u>	x 3 = <u>303</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>331</u> (B)	Prevalence Index = B/A = <u>3.01</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>4</u>	x 2 = <u>8</u>																			
FAC species <u>101</u>	x 3 = <u>303</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>110</u> (A)	<u>331</u> (B)																			
Prevalence Index = B/A = <u>3.01</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
=Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. <u>Sambucus nigra</u>	<u>1</u>	<u>No</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Diospyros virginiana</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
=Total Cover																				
50% of total cover: <u>1</u>		20% of total cover: <u>1</u>																		
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Rubus argutus</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Apios americana</u>	<u>3</u>	<u>No</u>	<u>FACW</u>																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
=Total Cover																				
50% of total cover: <u>27</u>		20% of total cover: <u>11</u>																		
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. <u>Campsis radicans</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No _____																
2. <u>Lonicera japonica</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
3. _____																				
4. _____																				
5. _____																				
=Total Cover																				
50% of total cover: <u>28</u>		20% of total cover: <u>11</u>																		

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/2						Loamy/Clayey	Silty clay loam
1-4	10YR 3/3						Loamy/Clayey	Sandy clay loam
4-8	10YR 4/2						Loamy/Clayey	Sandy clay loam
8-10	10YR 5/3						Loamy/Clayey	Sandy clay loam
10-16	10YR 5/3	90	7.5YR 4/6	10	C	PL	Loamy/Clayey	Prominent redox concentrations
								Sandy clay loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Thin Dark Surface (S9) (LRR S, T, U)	☐ 1 cm Muck (A9) (LRR O)
☐ Histic Epipedon (A2)	☐ Barrier Islands 1 cm Muck (S12)	☐ 2 cm Muck (A10) (LRR S)
☐ Black Histic (A3)	(MLRA 153B, 153D)	☐ Coast Prairie Redox (A16)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (LRR O)	(outside MLRA 150A)
☐ Stratified Layers (A5)	☐ Loamy Gleyed Matrix (F2)	☐ Reduced Vertic (F18)
☐ Organic Bodies (A6) (LRR P, T, U)	☐ Depleted Matrix (F3)	(outside MLRA 150A, 150B)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)	☐ Redox Dark Surface (F6)	☐ Piedmont Floodplain Soils (F19) (LRR P, T)
☐ Muck Presence (A8) (LRR U)	☐ Depleted Dark Surface (F7)	☐ Anomalous Bright Floodplain Soils (F20)
☐ 1 cm Muck (A9) (LRR P, T)	☐ Redox Depressions (F8)	(MLRA 153B)
☐ Depleted Below Dark Surface (A11)	☐ Marl (F10) (LRR U)	☐ Red Parent Material (F21)
☐ Thick Dark Surface (A12)	☐ Depleted Ochric (F11) (MLRA 151)	☐ Very Shallow Dark Surface (F22)
☐ Coast Prairie Redox (A16) (MLRA 150A)	☐ Iron-Manganese Masses (F12) (LRR O, P, T)	(outside MLRA 138, 152A in FL, 154)
☐ Sandy Mucky Mineral (S1) (LRR O, S)	☐ Umbric Surface (F13) (LRR P, T, U)	☐ Barrier Islands Low Chroma Matrix (TS7)
☐ Sandy Gleyed Matrix (S4)	☐ Delta Ochric (F17) (MLRA 151)	(MLRA 153B, 153D)
☐ Sandy Redox (S5)	☐ Reduced Vertic (F18) (MLRA 150A, 150B)	☐ Other (Explain in Remarks)
☐ Stripped Matrix (S6)	☐ Piedmont Floodplain Soils (F19) (MLRA 149A)	
☐ Dark Surface (S7) (LRR P, S, T, U)	☐ Anomalous Bright Floodplain Soils (F20)	
☐ Polyvalue Below Surface (S8)	(MLRA 149A, 153C, 153D)	
(LRR S, T, U)	☐ Very Shallow Dark Surface (F22)	
	(MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u> X </u>
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Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	<i>OMB Control #: 0710-0024, Exp: 11/30/2024</i> <i>Requirement Control Symbol EXEMPT:</i> <i>(Authority: AR 335-15, paragraph 5-2a)</i>
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Project/Site: Project Lotus Site City/County: Shorter / Macon Sampling Date: 8-6-2024

Applicant/Owner: DYCM Power, LLC State: AL Sampling Point: 303

Investigator(s): Doug Dallas, Garth Crow; BioResources, LLC Section, Township, Range: S 2, T 16 N, R 21 E

Landform (hillside, terrace, etc.): Bottom Local relief (concave, convex, none): Concave Slope (%): 1-2%

Subregion (LRR or MLRA): LRR P Lat: 32.4024 N Long: 85.9328 W Datum: None

Soil Map Unit Name: KmA - Kinston-Mooreville complex, 0-1% slopes, frequently flooded NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks: MLRA 133C is not in the drop down list.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u> </u> Surface Water (A1) <u> </u> High Water Table (A2) <u> X </u> Saturation (A3) <u> </u> Water Marks (B1) <u> </u> Sediment Deposits (B2) <u> </u> Drift Deposits (B3) <u> </u> Algal Mat or Crust (B4) <u> </u> Iron Deposits (B5) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Water-Stained Leaves (B9) <u> </u> Aquatic Fauna (B13) <u> </u> Marl Deposits (B15) (LRR U) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Thin Muck Surface (C7) <u> </u> Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> <u> </u> Surface Soil Cracks (B6) <u> </u> Sparsely Vegetated Concave Surface (B8) <u> X </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> X </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> X </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> X </u> FAC-Neutral Test (D5) <u> </u> Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes <u> </u> No <u> X </u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u> X </u> Depth (inches): <u> </u> Saturation Present? Yes <u> X </u> No <u> </u> Depth (inches): <u> 4 </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> X </u> No <u> </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 	
Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 303

<u>Tree Stratum</u> (Plot size: <u>25'</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Betula nigra</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>
2.	<u>Liquidambar styraciflua</u>	<u>10</u>	<u>No</u>	<u>FAC</u>
3.				
4.				
5.				
6.				
7.				
8.				
		<u>90</u>	=Total Cover	
50% of total cover:		<u>45</u>	20% of total cover:	<u>18</u>

<u>Sapling/Shrub Stratum</u> (Plot size: <u>25'</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Ligustrum sinense</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
2.	<u>Liquidambar styraciflua</u>	<u>3</u>	<u>Yes</u>	<u>FAC</u>
3.	<u>Triadica sebifera</u>	<u>2</u>	<u>No</u>	<u>FAC</u>
4.	<u>Betula nigra</u>	<u>1</u>	<u>No</u>	<u>FACW</u>
5.				
6.				
7.				
8.				
		<u>11</u>	=Total Cover	
50% of total cover:		<u>6</u>	20% of total cover:	<u>3</u>

<u>Herb Stratum</u> (Plot size: <u>10'</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Juncus effusus</u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>
2.	<u>Rubus argutus</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
3.	<u>Carex lurida</u>	<u>5</u>	<u>Yes</u>	<u>OBL</u>
4.	<u>Carex glaucescens</u>	<u>5</u>	<u>Yes</u>	<u>OBL</u>
5.	<u>Saururus cernuus</u>	<u>5</u>	<u>Yes</u>	<u>OBL</u>
6.	<u>Dichanthelium commutatum</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
7.	<u>Athyrium asplenioides</u>	<u>3</u>	<u>No</u>	<u>FAC</u>
8.	<u>Agalinis purpurea</u>	<u>3</u>	<u>No</u>	<u>FACW</u>
9.	<u>Boehmeria cylindrica</u>	<u>3</u>	<u>No</u>	<u>FACW</u>
10.	<u>Woodwardia areolata</u>	<u>2</u>	<u>No</u>	<u>OBL</u>
11.	<u>Impatiens capensis</u>	<u>2</u>	<u>No</u>	<u>FACW</u>
12.	<u>Eupatorium album</u>	<u>1</u>	<u>No</u>	<u>UPL</u>
		<u>59</u>	=Total Cover	
50% of total cover:		<u>30</u>	20% of total cover:	<u>12</u>

<u>Woody Vine Stratum</u> (Plot size: <u>25'</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Vitis rotundifolia</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
2.	<u>Gelsemium sempervirens</u>	<u>1</u>	<u>No</u>	<u>FAC</u>
3.				
4.				
5.				
		<u>6</u>	=Total Cover	
50% of total cover:		<u>3</u>	20% of total cover:	<u>2</u>

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 10 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>32</u>	x 1 = <u>32</u>
FACW species <u>89</u>	x 2 = <u>178</u>
FAC species <u>44</u>	x 3 = <u>132</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>1</u>	x 5 = <u>5</u>
Column Totals: <u>166</u> (A)	<u>347</u> (B)
Prevalence Index = B/A = <u>2.09</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0¹

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes X No

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/2						Loamy/Clayey	Sandy clay loam
1-5	10YR 4/2	95	7.5YR 4/6	5	C	PL	Loamy/Clayey	Sandy clay loam
5-16	10YR 4/1	95	7.5YR 4/6	5	C	PL	Loamy/Clayey	Sandy clay loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils³:			
☐ Histosol (A1)			☐ Thin Dark Surface (S9) (LRR S, T, U)		☐ 1 cm Muck (A9) (LRR O)			
☐ Histic Epipedon (A2)			☐ Barrier Islands 1 cm Muck (S12)		☐ 2 cm Muck (A10) (LRR S)			
☐ Black Histic (A3)			☐ (MLRA 153B, 153D)		☐ Coast Prairie Redox (A16)			
☐ Hydrogen Sulfide (A4)			☐ Loamy Mucky Mineral (F1) (LRR O)		☐ (outside MLRA 150A)			
☐ Stratified Layers (A5)			☐ Loamy Gleyed Matrix (F2)		☐ Reduced Vertic (F18)			
☐ Organic Bodies (A6) (LRR P, T, U)			☒ Depleted Matrix (F3)		☐ (outside MLRA 150A, 150B)			
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)			☐ Redox Dark Surface (F6)		☐ Piedmont Floodplain Soils (F19) (LRR P, T)			
☐ Muck Presence (A8) (LRR U)			☐ Depleted Dark Surface (F7)		☐ Anomalous Bright Floodplain Soils (F20)			
☐ 1 cm Muck (A9) (LRR P, T)			☐ Redox Depressions (F8)		☐ (MLRA 153B)			
☒ Depleted Below Dark Surface (A11)			☐ Marl (F10) (LRR U)		☐ Red Parent Material (F21)			
☐ Thick Dark Surface (A12)			☐ Depleted Ochric (F11) (MLRA 151)		☐ Very Shallow Dark Surface (F22)			
☐ Coast Prairie Redox (A16) (MLRA 150A)			☐ Iron-Manganese Masses (F12) (LRR O, P, T)		☐ (outside MLRA 138, 152A in FL, 154)			
☐ Sandy Mucky Mineral (S1) (LRR O, S)			☐ Umbric Surface (F13) (LRR P, T, U)		☐ Barrier Islands Low Chroma Matrix (TS7)			
☐ Sandy Gleyed Matrix (S4)			☐ Delta Ochric (F17) (MLRA 151)		☐ (MLRA 153B, 153D)			
☐ Sandy Redox (S5)			☐ Reduced Vertic (F18) (MLRA 150A, 150B)		☐ Other (Explain in Remarks)			
☐ Stripped Matrix (S6)			☐ Piedmont Floodplain Soils (F19) (MLRA 149A)					
☐ Dark Surface (S7) (LRR P, S, T, U)			☐ Anomalous Bright Floodplain Soils (F20)					
☐ Polyvalue Below Surface (S8)			☐ (MLRA 149A, 153C, 153D)					
☐ (LRR S, T, U)			☐ Very Shallow Dark Surface (F22)					
			☐ (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____					Hydric Soil Present? Yes ☒ No ☐			
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: <u>Project Lotus Site</u>	City/County: <u>Shorter / Macon</u>	Sampling Date: <u>8-6-2024</u>
Applicant/Owner: <u>DYCM Power, LLC</u>	State: <u>AL</u>	Sampling Point: <u>304</u>
Investigator(s): <u>Doug Dallas, Garth Crow; BioResources LLC</u> Section, Township, Range: <u>S 2, T 16 N, R 21 E</u>		
Landform (hillside, terrace, etc.): <u>Hillside</u>	Local relief (concave, convex, none): <u>None</u>	Slope (%): <u>1-2%</u>
Subregion (LRR or MLRA): <u>LRR P</u>	Lat: <u>32.4023 N</u>	Long: <u>85.9327 W</u> Datum: <u>None</u>
Soil Map Unit Name: <u>KmA - Kinston-Mooreville complex, 0-1% slopes, frequently flooded</u>		NWI classification: <u>Upland</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>X</u> No <u> </u> (If no, explain in Remarks.)		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly disturbed? Are "Normal Circumstances" present? Yes <u>X</u> No <u> </u>		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic? (If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: MLRA 133C is not in the drop down list.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) (LRR U) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ FAC-Neutral Test (D5) ☐ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No primary indicators of wetland hydrology were observed.	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 304

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Betula nigra</u>	<u>75</u>	<u>Yes</u>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. <u>Liquidambar styraciflua</u>	<u>10</u>	<u>No</u>	<u>FAC</u>																	
3. <u>Salix nigra</u>	<u>10</u>	<u>No</u>	<u>OBL</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>95</u> =Total Cover																				
50% of total cover: <u>48</u>		20% of total cover: <u>19</u>																		
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. <u>Ligustrum sinense</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>110</u></td> <td>x 2 = <u>220</u></td> </tr> <tr> <td>FAC species <u>49</u></td> <td>x 3 = <u>147</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>169</u> (A)</td> <td><u>377</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.23</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>110</u>	x 2 = <u>220</u>	FAC species <u>49</u>	x 3 = <u>147</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>169</u> (A)	<u>377</u> (B)	Prevalence Index = B/A = <u>2.23</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>10</u>	x 1 = <u>10</u>																			
FACW species <u>110</u>	x 2 = <u>220</u>																			
FAC species <u>49</u>	x 3 = <u>147</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>169</u> (A)	<u>377</u> (B)																			
Prevalence Index = B/A = <u>2.23</u>																				
2. <u>Liquidambar styraciflua</u>	<u>3</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Betula nigra</u>	<u>1</u>	<u>No</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>14</u> =Total Cover																				
50% of total cover: <u>7</u>		20% of total cover: <u>3</u>																		
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Chasmanthium laxum</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>_____</u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Rubus argutus</u>	<u>10</u>	<u>No</u>	<u>FAC</u>																	
3. <u>Ligustrum sinense</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Boehmeria cylindrica</u>	<u>3</u>	<u>No</u>	<u>FACW</u>																	
5. <u>Dichantherium commutatum</u>	<u>3</u>	<u>No</u>	<u>FAC</u>																	
6. <u>Eupatorium leucolepis</u>	<u>1</u>	<u>No</u>	<u>FACW</u>																	
7. <u>Athyrium asplenioides</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>53</u> =Total Cover																				
50% of total cover: <u>27</u>		20% of total cover: <u>11</u>																		
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. <u>Vitis rotundifolia</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Gelsemium sempervirens</u>	<u>2</u>	<u>Yes</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>7</u> =Total Cover																				
50% of total cover: <u>4</u>		20% of total cover: <u>2</u>																		

Hydrophytic Vegetation Present? Yes X No _____

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/3						Loamy/Clayey	Sandy clay loam
1-4	10YR 3/2	95	7.5YR 4/6	5	C	PL	Loamy/Clayey	Sandy clay loam
4-7	2.5Y 6/3	95	7.5YR 4/6	5	C	PL	Sandy	Fine sand
7-16	2.5Y 6/3	60	10YR 3/2	40	C	M	Sandy	Loamy sand

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Thin Dark Surface (S9) (LRR S, T, U)	☐ 1 cm Muck (A9) (LRR O)
☐ Histic Epipedon (A2)	☐ Barrier Islands 1 cm Muck (S12)	☐ 2 cm Muck (A10) (LRR S)
☐ Black Histic (A3)	☐ (MLRA 153B, 153D)	☐ Coast Prairie Redox (A16)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (LRR O)	☐ (outside MLRA 150A)
☐ Stratified Layers (A5)	☐ Loamy Gleyed Matrix (F2)	☐ Reduced Vertic (F18)
☐ Organic Bodies (A6) (LRR P, T, U)	☐ Depleted Matrix (F3)	☐ (outside MLRA 150A, 150B)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)	☐ Redox Dark Surface (F6)	☐ Piedmont Floodplain Soils (F19) (LRR P, T)
☐ Muck Presence (A8) (LRR U)	☐ Depleted Dark Surface (F7)	☐ Anomalous Bright Floodplain Soils (F20)
☐ 1 cm Muck (A9) (LRR P, T)	☐ Redox Depressions (F8)	☐ (MLRA 153B)
☐ Depleted Below Dark Surface (A11)	☐ Marl (F10) (LRR U)	☐ Red Parent Material (F21)
☐ Thick Dark Surface (A12)	☐ Depleted Ochric (F11) (MLRA 151)	☐ Very Shallow Dark Surface (F22)
☐ Coast Prairie Redox (A16) (MLRA 150A)	☐ Iron-Manganese Masses (F12) (LRR O, P, T)	☐ (outside MLRA 138, 152A in FL, 154)
☐ Sandy Mucky Mineral (S1) (LRR O, S)	☐ Umbric Surface (F13) (LRR P, T, U)	☐ Barrier Islands Low Chroma Matrix (TS7)
☐ Sandy Gleyed Matrix (S4)	☐ Delta Ochric (F17) (MLRA 151)	☐ (MLRA 153B, 153D)
☐ Sandy Redox (S5)	☐ Reduced Vertic (F18) (MLRA 150A, 150B)	☐ Other (Explain in Remarks)
☐ Stripped Matrix (S6)	☐ Piedmont Floodplain Soils (F19) (MLRA 149A)	
☐ Dark Surface (S7) (LRR P, S, T, U)	☐ Anomalous Bright Floodplain Soils (F20)	
☐ Polyvalue Below Surface (S8)	☐ (MLRA 149A, 153C, 153D)	
☐ (LRR S, T, U)	☐ Very Shallow Dark Surface (F22)	
	☐ (MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	<i>OMB Control #: 0710-0024, Exp: 11/30/2024</i> <i>Requirement Control Symbol EXEMPT:</i> <i>(Authority: AR 335-15, paragraph 5-2a)</i>
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Project/Site: <u>Project Lotus Site</u>	City/County: <u>Shorter / Macon</u>	Sampling Date: <u>7-26-2024</u>
Applicant/Owner: <u>DYCM Power, LLC</u>	State: <u>AL</u>	Sampling Point: <u>401</u>
Investigator(s): <u>Doug Dallas, Garth Crow; BioResources LLC</u>	Section, Township, Range: <u>S 2, T 16 N, R 21 E</u>	
Landform (hillside, terrace, etc.): <u>Bottom</u>	Local relief (concave, convex, none): <u>Concave</u>	Slope (%): <u>1-2%</u>
Subregion (LRR or MLRA): <u>LRR P</u>	Lat: <u>32.4055 N</u>	Long: <u>85.9318 W</u>
Datum: <u>None</u>		
Soil Map Unit Name: <u>LyA - Lynchburg fine sandy loam, 0-2% slopes, rarely flooded</u>	NW1 classification: <u>PFO1B</u>	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>X</u> No <u> </u> (If no, explain in Remarks.)		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly disturbed? Are "Normal Circumstances" present? Yes <u>X</u> No <u> </u>		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic? (If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks: MLRA 133C is not in the drop down list.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u> </u> Surface Water (A1) <u> X </u> High Water Table (A2) <u> X </u> Saturation (A3) <u> </u> Water Marks (B1) <u> </u> Sediment Deposits (B2) <u> </u> Drift Deposits (B3) <u> </u> Algal Mat or Crust (B4) <u> </u> Iron Deposits (B5) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Water-Stained Leaves (B9) <u> </u> Aquatic Fauna (B13) <u> </u> Marl Deposits (B15) (LRR U) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Thin Muck Surface (C7) <u> </u> Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> <u> </u> Surface Soil Cracks (B6) <u> </u> Sparsely Vegetated Concave Surface (B8) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> X </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> X </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> FAC-Neutral Test (D5) <u> </u> Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes <u> </u> No <u> X </u> Depth (inches): <u> </u> Water Table Present? Yes <u> X </u> No <u> </u> Depth (inches): <u> 7 </u> Saturation Present? Yes <u> X </u> No <u> </u> Depth (inches): <u> 0 </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> X </u> No <u> </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 	
Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 401

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Liquidambar styraciflua</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>115</u></td> <td>x 3 = <u>345</u></td> </tr> <tr> <td>FACU species <u>6</u></td> <td>x 4 = <u>24</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>131</u> (A)</td> <td><u>389</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.97</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>115</u>	x 3 = <u>345</u>	FACU species <u>6</u>	x 4 = <u>24</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>131</u> (A)	<u>389</u> (B)	Prevalence Index = B/A = <u>2.97</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>10</u>	x 2 = <u>20</u>																			
FAC species <u>115</u>	x 3 = <u>345</u>																			
FACU species <u>6</u>	x 4 = <u>24</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>131</u> (A)	<u>389</u> (B)																			
Prevalence Index = B/A = <u>2.97</u>																				
2. <u>Triadica sebifera</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
45 = Total Cover																				
50% of total cover: <u>23</u>		20% of total cover: <u>9</u>																		
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. <u>Ligustrum sinense</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Carpinus caroliniana</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Ulmus americana</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Cornus amomum</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
45 = Total Cover																				
50% of total cover: <u>23</u>		20% of total cover: <u>9</u>																		
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Ligustrum sinense</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <u>X</u> No _____																
2. <u>Rubus argutus</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Rubus trivialis</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
4. <u>Boehmeria cylindrica</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
5. <u>Carpinus caroliniana</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
35 = Total Cover																				
50% of total cover: <u>18</u>		20% of total cover: <u>7</u>																		
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. <u>Smilax rotundifolia</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
2. <u>Lonicera japonica</u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6 = Total Cover																				
50% of total cover: <u>3</u>		20% of total cover: <u>2</u>																		

Remarks: (If observed, list morphological adaptations below.)

SOIL

Sampling Point: 401

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2						Loamy/Clayey	Sandy Clay Loam
2-7	10YR 4/2						Loamy/Clayey	Sandy Clay Loam
7-16	10YR 4/2	90	7.5YR 4/6	10	C	PL/M	Loamy/Clayey	Sandy Clay Loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.								² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						Indicators for Problematic Hydric Soils³:		
☐ Histosol (A1)			☐ Thin Dark Surface (S9) (LRR S, T, U)			☐ 1 cm Muck (A9) (LRR O)		
☐ Histic Epipedon (A2)			☐ Barrier Islands 1 cm Muck (S12)			☐ 2 cm Muck (A10) (LRR S)		
☐ Black Histic (A3)			☐ (MLRA 153B, 153D)			☐ Coast Prairie Redox (A16)		
☐ Hydrogen Sulfide (A4)			☐ Loamy Mucky Mineral (F1) (LRR O)			☐ (outside MLRA 150A)		
☐ Stratified Layers (A5)			☐ Loamy Gleyed Matrix (F2)			☐ Reduced Vertic (F18)		
☐ Organic Bodies (A6) (LRR P, T, U)			☒ Depleted Matrix (F3)			☐ (outside MLRA 150A, 150B)		
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)			☐ Redox Dark Surface (F6)			☐ Piedmont Floodplain Soils (F19) (LRR P, T)		
☐ Muck Presence (A8) (LRR U)			☐ Depleted Dark Surface (F7)			☐ Anomalous Bright Floodplain Soils (F20)		
☐ 1 cm Muck (A9) (LRR P, T)			☐ Redox Depressions (F8)			☐ (MLRA 153B)		
☐ Depleted Below Dark Surface (A11)			☐ Marl (F10) (LRR U)			☐ Red Parent Material (F21)		
☐ Thick Dark Surface (A12)			☐ Depleted Ochric (F11) (MLRA 151)			☐ Very Shallow Dark Surface (F22)		
☐ Coast Prairie Redox (A16) (MLRA 150A)			☐ Iron-Manganese Masses (F12) (LRR O, P, T)			☐ (outside MLRA 138, 152A in FL, 154)		
☐ Sandy Mucky Mineral (S1) (LRR O, S)			☐ Umbric Surface (F13) (LRR P, T, U)			☐ Barrier Islands Low Chroma Matrix (TS7)		
☐ Sandy Gleyed Matrix (S4)			☐ Delta Ochric (F17) (MLRA 151)			☐ (MLRA 153B, 153D)		
☐ Sandy Redox (S5)			☐ Reduced Vertic (F18) (MLRA 150A, 150B)			☐ Other (Explain in Remarks)		
☐ Stripped Matrix (S6)			☐ Piedmont Floodplain Soils (F19) (MLRA 149A)					
☐ Dark Surface (S7) (LRR P, S, T, U)			☐ Anomalous Bright Floodplain Soils (F20)					
☐ Polyvalue Below Surface (S8)			☐ (MLRA 149A, 153C, 153D)					
☐ (LRR S, T, U)			☐ Very Shallow Dark Surface (F22)					
			☐ (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____								
						Hydric Soil Present? Yes ☒ No ☐		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Project Lotus Site City/County: Shorter / Macon Sampling Date: 7-26-2024

Applicant/Owner: DYCM Power, LLC State: AL Sampling Point: 402

Investigator(s): Doug Dallas, Garth Crow; BioResources LLC Section, Township, Range: S 2, T 16 N, R 21 E

Landform (hillside, terrace, etc.): Hillside Local relief (concave, convex, none): None Slope (%): 0-2%

Subregion (LRR or MLRA): LRR P Lat: 32.4053 N Long: 85.9318 W Datum: None

Soil Map Unit Name: LyA - Lynchburg fine sandy loam, 0-2% slopes, rarely flooded NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation Y, Soil Y, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes No X

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: MLRA 133C is not in the drop down list. The data point is located in an active agricultural field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u> </u> Surface Water (A1) <u> </u> High Water Table (A2) <u> </u> Saturation (A3) <u> </u> Water Marks (B1) <u> </u> Sediment Deposits (B2) <u> </u> Drift Deposits (B3) <u> </u> Algal Mat or Crust (B4) <u> </u> Iron Deposits (B5) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Water-Stained Leaves (B9) <u> </u> Aquatic Fauna (B13) <u> </u> Marl Deposits (B15) (LRR U) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Thin Muck Surface (C7) <u> </u> Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> <u> </u> Surface Soil Cracks (B6) <u> </u> Sparsely Vegetated Concave Surface (B8) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> FAC-Neutral Test (D5) <u> </u> Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 	
Remarks: No indicators of wetland hydrology were observed.	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 402

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. -----				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>60</u></td> <td>x 4 = <u>240</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>60</u> (A)</td> <td><u>240</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>60</u>	x 4 = <u>240</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>60</u> (A)	<u>240</u> (B)	Prevalence Index = B/A = <u>4.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>60</u>	x 4 = <u>240</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>60</u> (A)	<u>240</u> (B)																			
Prevalence Index = B/A = <u>4.00</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
_____ = Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. -----				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
_____ = Total Cover																				
50% of total cover: _____		20% of total cover: _____																		
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Gossypium hirsutum</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Digitaria sanguinalis</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
_____ = Total Cover																				
50% of total cover: <u>30</u>		20% of total cover: <u>12</u>																		
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. -----				Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>																
2. _____																				
3. _____																				
4. _____																				
5. _____																				
_____ = Total Cover																				
50% of total cover: _____		20% of total cover: _____																		

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/2						Loamy/Clayey	Sandy Clay Loam
1-10	10YR 3/3	95	7.5YR 4/6	5	C	PL	Loamy/Clayey	Sandy Clay Loam
10-16	10YR 5/4	90	7.5YR 4/6	10	C	M	Loamy/Clayey	Sandy Clay Loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils³:			
☐ Histosol (A1)			☐ Thin Dark Surface (S9) (LRR S, T, U)		☐ 1 cm Muck (A9) (LRR O)			
☐ Histic Epipedon (A2)			☐ Barrier Islands 1 cm Muck (S12)		☐ 2 cm Muck (A10) (LRR S)			
☐ Black Histic (A3)			(MLRA 153B, 153D)		☐ Coast Prairie Redox (A16)			
☐ Hydrogen Sulfide (A4)			☐ Loamy Mucky Mineral (F1) (LRR O)		(outside MLRA 150A)			
☐ Stratified Layers (A5)			☐ Loamy Gleyed Matrix (F2)		☐ Reduced Vertic (F18)			
☐ Organic Bodies (A6) (LRR P, T, U)			☐ Depleted Matrix (F3)		(outside MLRA 150A, 150B)			
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)			☐ Redox Dark Surface (F6)		☐ Piedmont Floodplain Soils (F19) (LRR P, T)			
☐ Muck Presence (A8) (LRR U)			☐ Depleted Dark Surface (F7)		☐ Anomalous Bright Floodplain Soils (F20)			
☐ 1 cm Muck (A9) (LRR P, T)			☐ Redox Depressions (F8)		(MLRA 153B)			
☐ Depleted Below Dark Surface (A11)			☐ Marl (F10) (LRR U)		☐ Red Parent Material (F21)			
☐ Thick Dark Surface (A12)			☐ Depleted Ochric (F11) (MLRA 151)		☐ Very Shallow Dark Surface (F22)			
☐ Coast Prairie Redox (A16) (MLRA 150A)			☐ Iron-Manganese Masses (F12) (LRR O, P, T)		(outside MLRA 138, 152A in FL, 154)			
☐ Sandy Mucky Mineral (S1) (LRR O, S)			☐ Umbric Surface (F13) (LRR P, T, U)		☐ Barrier Islands Low Chroma Matrix (TS7)			
☐ Sandy Gleyed Matrix (S4)			☐ Delta Ochric (F17) (MLRA 151)		(MLRA 153B, 153D)			
☐ Sandy Redox (S5)			☐ Reduced Vertic (F18) (MLRA 150A, 150B)		☐ Other (Explain in Remarks)			
☐ Stripped Matrix (S6)			☐ Piedmont Floodplain Soils (F19) (MLRA 149A)					
☐ Dark Surface (S7) (LRR P, S, T, U)			☐ Anomalous Bright Floodplain Soils (F20)					
☐ Polyvalue Below Surface (S8)			(MLRA 149A, 153C, 153D)					
(LRR S, T, U)			☐ Very Shallow Dark Surface (F22)					
			(MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____								
							Hydric Soil Present? Yes _____ No <u> X </u>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R		OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)	
Project/Site: Project Lotus Site		City/County: Shorter / Macon	Sampling Date: 8-2-2024
Applicant/Owner: DYCM Power, LLC		State: AL	Sampling Point: 501
Investigator(s): Doug Dallas, Garth Crow; BioResources, LLC		Section, Township, Range: S 3, T 16 N, R 21 E	
Landform (hillside, terrace, etc.): Bottom		Local relief (concave, convex, none): Concave	Slope (%): 1-2%
Subregion (LRR or MLRA): LRR P		Lat: 32.4041 N	Long: 85.9351 W
		Datum: None	
Soil Map Unit Name: KmA - Kinston-Mooreville complex, 0-1% slopes, frequently flooded		NWI classification: PFO1B	
Are climatic / hydrologic conditions on the site typical for this time of year?		Yes X	No (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed?		Are “Normal Circumstances” present? Yes X No	
Are Vegetation N, Soil N, or Hydrology N naturally problematic?		(If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes X No		Is the Sampled Area within a Wetland? Yes X No	
Hydric Soil Present? Yes X No			
Wetland Hydrology Present? Yes X No			
Remarks: MLRA 133C is not in the drop down list.			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
Surface Water (A1)		Surface Soil Cracks (B6)	
X High Water Table (A2)		Sparsely Vegetated Concave Surface (B8)	
X Saturation (A3)		Drainage Patterns (B10)	
Water Marks (B1)		Moss Trim Lines (B16)	
Sediment Deposits (B2)		Dry-Season Water Table (C2)	
Drift Deposits (B3)		X Crayfish Burrows (C8)	
Algal Mat or Crust (B4)		Saturation Visible on Aerial Imagery (C9)	
Iron Deposits (B5)		X Geomorphic Position (D2)	
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)	
Water-Stained Leaves (B9)		X FAC-Neutral Test (D5)	
		Sphagnum Moss (D8) (LRR T, U)	
Field Observations:		Wetland Hydrology Present? Yes X No	
Surface Water Present? Yes No X Depth (inches):			
Water Table Present? Yes X No Depth (inches): 7			
Saturation Present? Yes X No Depth (inches): 0			
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 501

Tree Stratum (Plot size: <u>25'</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Nyssa biflora</u>	<u>40</u>	<u>Yes</u>	<u>OBL</u>
2.	<u>Fraxinus pennsylvanica</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>
3.	<u>Liquidambar styraciflua</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>
4.	<u>Acer rubrum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
5.	<u>Quercus nigra</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
6.	<u>Betula nigra</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
7.				
8.				
		<u>100</u>	=Total Cover	
50% of total cover:		<u>50</u>	20% of total cover:	
			<u>20</u>	

Sapling/Shrub Stratum (Plot size: <u>25'</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>
2.	<u>Nyssa biflora</u>	<u>5</u>	<u>Yes</u>	<u>OBL</u>
3.	<u>Ligustrum sinense</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
4.	<u>Liquidambar styraciflua</u>	<u>2</u>	<u>No</u>	<u>FAC</u>
5.	<u>Acer rubrum</u>	<u>2</u>	<u>No</u>	<u>FAC</u>
6.				
7.				
8.				
		<u>24</u>	=Total Cover	
50% of total cover:		<u>12</u>	20% of total cover:	
			<u>5</u>	

Herb Stratum (Plot size: <u>10'</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Saururus cernuus</u>	<u>30</u>	<u>Yes</u>	<u>OBL</u>
2.	<u>Juncus effusus</u>	<u>25</u>	<u>Yes</u>	<u>OBL</u>
3.	<u>Carex lurida</u>	<u>5</u>	<u>No</u>	<u>OBL</u>
4.	<u>Boehmeria cylindrica</u>	<u>5</u>	<u>No</u>	<u>FACW</u>
5.	<u>Ligustrum sinense</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
6.	<u>Rubus argutus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
7.	<u>Eupatorium leucolepis</u>	<u>2</u>	<u>No</u>	<u>FACW</u>
8.	<u>Microstegium vimineum</u>	<u>2</u>	<u>No</u>	<u>FAC</u>
9.	<u>Fraxinus pennsylvanica</u>	<u>2</u>	<u>No</u>	<u>FACW</u>
10.	<u>Leersia virginica</u>	<u>2</u>	<u>No</u>	<u>FACW</u>
11.				
12.				
		<u>83</u>	=Total Cover	
50% of total cover:		<u>42</u>	20% of total cover:	
			<u>17</u>	

Woody Vine Stratum (Plot size: <u>25'</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Gelsemium sempervirens</u>	<u>4</u>	<u>Yes</u>	<u>FAC</u>
2.	<u>Toxicodendron radicans</u>	<u>1</u>	<u>No</u>	<u>FAC</u>
3.	<u>Smilax rotundifolia</u>	<u>1</u>	<u>No</u>	<u>FAC</u>
4.	<u>Ampelopsis arborea</u>	<u>1</u>	<u>No</u>	<u>FAC</u>
5.				
		<u>7</u>	=Total Cover	
50% of total cover:		<u>4</u>	20% of total cover:	
			<u>2</u>	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>105</u>	x 1 = <u>105</u>
FACW species <u>51</u>	x 2 = <u>102</u>
FAC species <u>58</u>	x 3 = <u>174</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>214</u> (A)	<u>381</u> (B)
Prevalence Index = B/A = <u>1.78</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0¹

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes X No

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 2/2						Loamy/Clayey	Silty clay loam
1-6	10YR 3/2	95	7.5YR 4/6	5	C	PL	Loamy/Clayey	Clay loam
6-10	10YR 3/2	85	5YR 3/4	15	C	PL	Loamy/Clayey	Clay loam
10-16	10YR 4/1	98	7.5YR 5/6	2	C	PL	Loamy/Clayey	Clay loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						Indicators for Problematic Hydric Soils³:		
☐ Histosol (A1)			☐ Thin Dark Surface (S9) (LRR S, T, U)			☐ 1 cm Muck (A9) (LRR O)		
☐ Histic Epipedon (A2)			☐ Barrier Islands 1 cm Muck (S12)			☐ 2 cm Muck (A10) (LRR S)		
☐ Black Histic (A3)			☐ (MLRA 153B, 153D)			☐ Coast Prairie Redox (A16)		
☐ Hydrogen Sulfide (A4)			☐ Loamy Mucky Mineral (F1) (LRR O)			☐ (outside MLRA 150A)		
☐ Stratified Layers (A5)			☐ Loamy Gleyed Matrix (F2)			☐ Reduced Vertic (F18)		
☐ Organic Bodies (A6) (LRR P, T, U)			☒ Depleted Matrix (F3)			☐ (outside MLRA 150A, 150B)		
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)			☒ Redox Dark Surface (F6)			☐ Piedmont Floodplain Soils (F19) (LRR P, T)		
☐ Muck Presence (A8) (LRR U)			☐ Depleted Dark Surface (F7)			☐ Anomalous Bright Floodplain Soils (F20)		
☐ 1 cm Muck (A9) (LRR P, T)			☐ Redox Depressions (F8)			☐ (MLRA 153B)		
☒ Depleted Below Dark Surface (A11)			☐ Marl (F10) (LRR U)			☐ Red Parent Material (F21)		
☐ Thick Dark Surface (A12)			☐ Depleted Ochric (F11) (MLRA 151)			☐ Very Shallow Dark Surface (F22)		
☐ Coast Prairie Redox (A16) (MLRA 150A)			☐ Iron-Manganese Masses (F12) (LRR O, P, T)			☐ (outside MLRA 138, 152A in FL, 154)		
☐ Sandy Mucky Mineral (S1) (LRR O, S)			☐ Umbric Surface (F13) (LRR P, T, U)			☐ Barrier Islands Low Chroma Matrix (TS7)		
☐ Sandy Gleyed Matrix (S4)			☐ Delta Ochric (F17) (MLRA 151)			☐ (MLRA 153B, 153D)		
☐ Sandy Redox (S5)			☐ Reduced Vertic (F18) (MLRA 150A, 150B)			☐ Other (Explain in Remarks)		
☐ Stripped Matrix (S6)			☐ Piedmont Floodplain Soils (F19) (MLRA 149A)					
☐ Dark Surface (S7) (LRR P, S, T, U)			☐ Anomalous Bright Floodplain Soils (F20)					
☐ Polyvalue Below Surface (S8)			☐ (MLRA 149A, 153C, 153D)					
☐ (LRR S, T, U)			☐ Very Shallow Dark Surface (F22)					
			☐ (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____								
						Hydric Soil Present? Yes ☒ No ☐		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R		OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)																																							
Project/Site: Project Lotus Site City/County: Shorter / Macon Sampling Date: 8-2-2024																																									
Applicant/Owner: DYCM Power, LLC State: AL Sampling Point: 502																																									
Investigator(s): Doug Dallas, Garth Crow; BioResources, LLC Section, Township, Range: S 3, T 16 N, R 21 E																																									
Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 1-2%																																									
Subregion (LRR or MLRA): LRR P Lat: 32.4042 N Long: 85.9351 W Datum: None																																									
Soil Map Unit Name: LyA - Lynchburg fine sandy loam, 0-2% slopes, rarely flooded NWI classification: Upland																																									
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)																																									
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are “Normal Circumstances” present? Yes X No																																									
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)																																									
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.																																									
<table><tr><td>Hydrophytic Vegetation Present? Yes X No</td><td rowspan="3">Is the Sampled Area within a Wetland? Yes No X</td></tr><tr><td>Hydric Soil Present? Yes No X</td></tr><tr><td>Wetland Hydrology Present? Yes No X</td></tr></table>			Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area within a Wetland? Yes No X	Hydric Soil Present? Yes No X	Wetland Hydrology Present? Yes No X																																			
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Remarks: MLRA 133C is not in the drop down list.																																									
HYDROLOGY																																									
<table><tr><td colspan="2">Wetland Hydrology Indicators:</td><td>Secondary Indicators (minimum of two required)</td></tr><tr><td colspan="2">Primary Indicators (minimum of one is required; check all that apply)</td><td></td></tr><tr><td>Surface Water (A1)</td><td>Aquatic Fauna (B13)</td><td>Surface Soil Cracks (B6)</td></tr><tr><td>High Water Table (A2)</td><td>Marl Deposits (B15) (LRR U)</td><td>Sparsely Vegetated Concave Surface (B8)</td></tr><tr><td>Saturation (A3)</td><td>Hydrogen Sulfide Odor (C1)</td><td>Drainage Patterns (B10)</td></tr><tr><td>Water Marks (B1)</td><td>Oxidized Rhizospheres on Living Roots (C3)</td><td>Moss Trim Lines (B16)</td></tr><tr><td>Sediment Deposits (B2)</td><td>Presence of Reduced Iron (C4)</td><td>Dry-Season Water Table (C2)</td></tr><tr><td>Drift Deposits (B3)</td><td>Recent Iron Reduction in Tilled Soils (C6)</td><td>Crayfish Burrows (C8)</td></tr><tr><td>Algal Mat or Crust (B4)</td><td>Thin Muck Surface (C7)</td><td>Saturation Visible on Aerial Imagery (C9)</td></tr><tr><td>Iron Deposits (B5)</td><td>Other (Explain in Remarks)</td><td>Geomorphic Position (D2)</td></tr><tr><td>Inundation Visible on Aerial Imagery (B7)</td><td></td><td>Shallow Aquitard (D3)</td></tr><tr><td>Water-Stained Leaves (B9)</td><td></td><td>X FAC-Neutral Test (D5)</td></tr><tr><td></td><td></td><td>Sphagnum Moss (D8) (LRR T, U)</td></tr></table>			Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	Primary Indicators (minimum of one is required; check all that apply)			Surface Water (A1)	Aquatic Fauna (B13)	Surface Soil Cracks (B6)	High Water Table (A2)	Marl Deposits (B15) (LRR U)	Sparsely Vegetated Concave Surface (B8)	Saturation (A3)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)	Water Marks (B1)	Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)	Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)	Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)	Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)	Iron Deposits (B5)	Other (Explain in Remarks)	Geomorphic Position (D2)	Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)	Water-Stained Leaves (B9)		X FAC-Neutral Test (D5)			Sphagnum Moss (D8) (LRR T, U)
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																									
Remarks: No primary indicators of wetland hydrology were observed.																																									

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 502

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus nigra</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>10</u> (A) Total Number of Dominant Species Across All Strata: <u>10</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. <u>Quercus phellos</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Liquidambar styraciflua</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
4. <u>Nyssa biflora</u>	<u>10</u>	<u>No</u>	<u>OBL</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
100 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>12</u></td> <td>x 1 = <u>12</u></td> </tr> <tr> <td>FACW species <u>34</u></td> <td>x 2 = <u>68</u></td> </tr> <tr> <td>FAC species <u>102</u></td> <td>x 3 = <u>306</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>148</u> (A)</td> <td><u>386</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.61</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>12</u>	x 1 = <u>12</u>	FACW species <u>34</u>	x 2 = <u>68</u>	FAC species <u>102</u>	x 3 = <u>306</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>148</u> (A)	<u>386</u> (B)	Prevalence Index = B/A = <u>2.61</u>	
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Prevalence Index = B/A = <u>2.61</u>																				
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>																				
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. <u>Quercus nigra</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>Problematic Hydrophytic Vegetation¹ (Explain)</u>																
2. <u>Liquidambar styraciflua</u>	<u>4</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Quercus phellos</u>	<u>2</u>	<u>No</u>	<u>FACW</u>																	
4. <u>Nyssa biflora</u>	<u>2</u>	<u>No</u>	<u>OBL</u>																	
5. <u>Ulmus rubra</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
6. <u>Ligustrum sinense</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
15 = Total Cover																				
50% of total cover: <u>8</u> 20% of total cover: <u>3</u>																				
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Chasmanthium laxum</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Dichanthelium commutatum</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Rubus argutus</u>	<u>3</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Boehmeria cylindrica</u>	<u>2</u>	<u>No</u>	<u>FACW</u>																	
5. <u>Athyrium asplenoides</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
6. <u>Liquidambar styraciflua</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
7. <u>Ligustrum sinense</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
23 = Total Cover																				
50% of total cover: <u>12</u> 20% of total cover: <u>5</u>																				
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. <u>Vitis rotundifolia</u>	<u>4</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No _____																
2. <u>Gelsemium sempervirens</u>	<u>3</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Smilax rotundifolia</u>	<u>2</u>	<u>Yes</u>	<u>FAC</u>																	
4. <u>Toxicodendron radicans</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
10 = Total Cover																				
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																				

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/2						Loamy/Clayey	Silty clay loam
1-4	10YR 3/3						Loamy/Clayey	Clay loam
4-6	10YR 4/2	95	7.5YR 4/6	5	C	PL	Loamy/Clayey	Sandy clay loam
6-12	10YR 5/3	90	7.5YR 5/6	10	C	PL	Loamy/Clayey	Sandy clay loam
12-16	2.5Y 6/4						Loamy/Clayey	Sandy clay loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Thin Dark Surface (S9) (LRR S, T, U)	☐ 1 cm Muck (A9) (LRR O)
☐ Histic Epipedon (A2)	☐ Barrier Islands 1 cm Muck (S12)	☐ 2 cm Muck (A10) (LRR S)
☐ Black Histic (A3)	(MLRA 153B, 153D)	☐ Coast Prairie Redox (A16)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (LRR O)	(outside MLRA 150A)
☐ Stratified Layers (A5)	☐ Loamy Gleyed Matrix (F2)	☐ Reduced Vertic (F18)
☐ Organic Bodies (A6) (LRR P, T, U)	☐ Depleted Matrix (F3)	(outside MLRA 150A, 150B)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)	☐ Redox Dark Surface (F6)	☐ Piedmont Floodplain Soils (F19) (LRR P, T)
☐ Muck Presence (A8) (LRR U)	☐ Depleted Dark Surface (F7)	☐ Anomalous Bright Floodplain Soils (F20)
☐ 1 cm Muck (A9) (LRR P, T)	☐ Redox Depressions (F8)	(MLRA 153B)
☐ Depleted Below Dark Surface (A11)	☐ Marl (F10) (LRR U)	☐ Red Parent Material (F21)
☐ Thick Dark Surface (A12)	☐ Depleted Ochric (F11) (MLRA 151)	☐ Very Shallow Dark Surface (F22)
☐ Coast Prairie Redox (A16) (MLRA 150A)	☐ Iron-Manganese Masses (F12) (LRR O, P, T)	(outside MLRA 138, 152A in FL, 154)
☐ Sandy Mucky Mineral (S1) (LRR O, S)	☐ Umbric Surface (F13) (LRR P, T, U)	☐ Barrier Islands Low Chroma Matrix (TS7)
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☐ Stripped Matrix (S6)	☐ Piedmont Floodplain Soils (F19) (MLRA 149A)	
☐ Dark Surface (S7) (LRR P, S, T, U)	☐ Anomalous Bright Floodplain Soils (F20)	
☐ Polyvalue Below Surface (S8)	(MLRA 149A, 153C, 153D)	
(LRR S, T, U)	☐ Very Shallow Dark Surface (F22)	
	(MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Segrest Farms City/County: Shorter / Macon Sampling Date: 4-20-2026

Applicant/Owner: _____ State: AL Sampling Point: 601

Investigator(s): Doug Dallas, Garth Crow; BioResources, LLC. Section, Township, Range: S 35, T 17 N, R 21 E

Landform (hillside, terrace, etc.): Bottom Local relief (concave, convex, none): Concave Slope (%): 1-3%

Subregion (LRR or MLRA): LRR P Lat: 32.4137 N Long: 85.9304 W Datum: None

Soil Map Unit Name: FuA-Fluvaquents silt loam,frequently ponded,0-1% slopes,frequently flooded NWI classification: PFO1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: MLRA 133C is not in the drop down list. The area is experiencing moderate drought conditions.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) (LRR U) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☒ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ FAC-Neutral Test (D5) ☐ Sphagnum Moss (D8) (LRR T, U)	
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>7</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 601

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Nyssa biflora</u>	<u>50</u>	<u>Yes</u>	<u>OBL</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>9</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>84</u></td> <td>x 1 = <u>84</u></td> </tr> <tr> <td>FACW species <u>65</u></td> <td>x 2 = <u>130</u></td> </tr> <tr> <td>FAC species <u>18</u></td> <td>x 3 = <u>54</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>177</u> (A)</td> <td><u>308</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.74</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>84</u>	x 1 = <u>84</u>	FACW species <u>65</u>	x 2 = <u>130</u>	FAC species <u>18</u>	x 3 = <u>54</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>177</u> (A)	<u>308</u> (B)	Prevalence Index = B/A = <u>1.74</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>84</u>	x 1 = <u>84</u>																			
FACW species <u>65</u>	x 2 = <u>130</u>																			
FAC species <u>18</u>	x 3 = <u>54</u>																			
FACU species <u>10</u>	x 4 = <u>40</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>177</u> (A)	<u>308</u> (B)																			
Prevalence Index = B/A = <u>1.74</u>																				
2. <u>Magnolia virginiana</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Liriodendron tulipifera</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
100 = Total Cover																				
50% of total cover: <u>50</u>		20% of total cover: <u>20</u>																		
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. <u>Ilex coriacea</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Morella cerifera</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Nyssa biflora</u>	<u>2</u>	<u>No</u>	<u>OBL</u>																	
4. <u>Magnolia virginiana</u>	<u>2</u>	<u>No</u>	<u>FACW</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
24 = Total Cover																				
50% of total cover: <u>12</u>		20% of total cover: <u>5</u>																		
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Woodwardia areolata</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Saururus cernuus</u>	<u>10</u>	<u>Yes</u>	<u>OBL</u>																	
3. <u>Ilex coriacea</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
4. <u>Morella cerifera</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
5. <u>Peltandra virginica</u>	<u>2</u>	<u>No</u>	<u>OBL</u>																	
6. <u>Ligustrum sinense</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
7. <u>Osmundastrum cinnamomeum</u>	<u>1</u>	<u>No</u>	<u>FACW</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
44 = Total Cover																				
50% of total cover: <u>22</u>		20% of total cover: <u>9</u>																		
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. <u>Vitis rotundifolia</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No _____																
2. <u>Gelsemium sempervirens</u>	<u>2</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Smilax laurifolia</u>	<u>2</u>	<u>Yes</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
9 = Total Cover																				
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>																		

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)												
Depth (inches)	Matrix		Redox Features				Texture	Remarks				
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²						
0-4	10YR 2/2						Loamy/Clayey	Sandt clay loam				
4-7	10YR 4/2	95	7.5YR 4/6	5	C	PL	Loamy/Clayey	Sandy loam				
7-16	10YR 2/1						Loamy/Clayey	Silty loam				
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.												
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☒ Stratified Layers (A5) ☒ Organic Bodies (A6) (LRR P, T, U) ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U) ☐ Muck Presence (A8) (LRR U) ☐ 1 cm Muck (A9) (LRR P, T) ☒ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Coast Prairie Redox (A16) (MLRA 150A) ☐ Sandy Mucky Mineral (S1) (LRR O, S) ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Dark Surface (S7) (LRR P, S, T, U) ☐ Polyvalue Below Surface (S8) (LRR S, T, U)					☐ Thin Dark Surface (S9) (LRR S, T, U) ☐ Barrier Islands 1 cm Muck (S12) (MLRA 153B, 153D) ☐ Loamy Mucky Mineral (F1) (LRR O) ☐ Loamy Gleyed Matrix (F2) ☒ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☒ Redox Depressions (F8) ☐ Marl (F10) (LRR U) ☐ Depleted Ochric (F11) (MLRA 151) ☐ Iron-Manganese Masses (F12) (LRR O, P, T) ☐ Umbric Surface (F13) (LRR P, T, U) ☐ Delta Ochric (F17) (MLRA 151) ☐ Reduced Vertic (F18) (MLRA 150A, 150B) ☐ Piedmont Floodplain Soils (F19) (MLRA 149A) ☐ Anomalous Bright Floodplain Soils (F20) (MLRA 149A, 153C, 153D) ☐ Very Shallow Dark Surface (F22) (MLRA 138, 152A in FL, 154)				Indicators for Problematic Hydric Soils³: ☐ 1 cm Muck (A9) (LRR O) ☐ 2 cm Muck (A10) (LRR S) ☐ Coast Prairie Redox (A16) (outside MLRA 150A) ☒ Reduced Vertic (F18) (outside MLRA 150A, 150B) ☐ Piedmont Floodplain Soils (F19) (LRR P, T) ☐ Anomalous Bright Floodplain Soils (F20) (MLRA 153B) ☐ Red Parent Material (F21) ☐ Very Shallow Dark Surface (F22) (outside MLRA 138, 152A in FL, 154) ☐ Barrier Islands Low Chroma Matrix (TS7) (MLRA 153B, 153D) ☐ Other (Explain in Remarks)			
Restrictive Layer (if observed): Type: _____ Depth (inches): _____					Hydric Soil Present? Yes ☒ No _____							
Remarks:												

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Segrest Farms City/County: Shorter / Macon Sampling Date: 4-20-2026

Applicant/Owner: _____ State: AL Sampling Point: 602

Investigator(s): Doug Dallas, Garth Crow; BioResources, LLC. Section, Township, Range: S 35, T 17 N, R 21 E

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 3-10%

Subregion (LRR or MLRA): LRR P Lat: 32.4136 N Long: 85.9305 W Datum: None

Soil Map Unit Name: BnE -Blanton-Luverne complex, 12-25% slopes NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: MLRA 133C is not in the drop down list. The area is experiencing moderate drought conditions.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) (LRR U) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: No indicators of wetland hydrology were observed.	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 602

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Pinus taeda</u>	<u>60</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>10</u> (A) Total Number of Dominant Species Across All Strata: <u>11</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>90.9%</u> (A/B)																
2. <u>Liquidambar styraciflua</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Salix nigra</u>	<u>10</u>	<u>No</u>	<u>OBL</u>																	
4. <u>Acer rubrum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>95</u> = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply by:</th> </tr> <tr> <td>OBL species <u>11</u></td> <td>x 1 = <u>11</u></td> </tr> <tr> <td>FACW species <u>3</u></td> <td>x 2 = <u>6</u></td> </tr> <tr> <td>FAC species <u>118</u></td> <td>x 3 = <u>354</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>137</u> (A)</td> <td><u>391</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.85</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>11</u>	x 1 = <u>11</u>	FACW species <u>3</u>	x 2 = <u>6</u>	FAC species <u>118</u>	x 3 = <u>354</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>137</u> (A)	<u>391</u> (B)	Prevalence Index = B/A = <u>2.85</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>11</u>	x 1 = <u>11</u>																			
FACW species <u>3</u>	x 2 = <u>6</u>																			
FAC species <u>118</u>	x 3 = <u>354</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>137</u> (A)	<u>391</u> (B)																			
Prevalence Index = B/A = <u>2.85</u>																				
50% of total cover: <u>48</u> 20% of total cover: <u>19</u>																				
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. <u>Pinus taeda</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Liquidambar styraciflua</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Callicarpa americana</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
4. <u>Salix nigra</u>	<u>1</u>	<u>No</u>	<u>OBL</u>																	
5. <u>Acer rubrum</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>17</u> = Total Cover																				
50% of total cover: <u>9</u> 20% of total cover: <u>4</u>																				
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Liquidambar styraciflua</u>	<u>2</u>	<u>Yes</u>	<u>FAC</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Campsis radicans</u>	<u>2</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Lygodium japonicum</u>	<u>2</u>	<u>Yes</u>	<u>FAC</u>																	
4. <u>Chasmanthium laxum</u>	<u>2</u>	<u>Yes</u>	<u>FACW</u>																	
5. <u>Athyrium asplenoides</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>9</u> = Total Cover																				
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>																				
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. <u>Campsis radicans</u>	<u>8</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No _____																
2. <u>Vitis rotundifolia</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Toxicodendron radicans</u>	<u>2</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Decumaria barbara</u>	<u>1</u>	<u>No</u>	<u>FACW</u>																	
5. _____	_____	_____	_____																	
<u>16</u> = Total Cover																				
50% of total cover: <u>8</u> 20% of total cover: <u>4</u>																				

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	7.5YR 4/4						Loamy/Clayey	Clay loam
2-12	2.5YR 3/6						Loamy/Clayey	Gravelly clay loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Thin Dark Surface (S9) (LRR S, T, U) ☐ Histic Epipedon (A2) ☐ Barrier Islands 1 cm Muck (S12) ☐ Black Histic (A3) (MLRA 153B, 153D) ☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1) (LRR O) ☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2) ☒ Organic Bodies (A6) (LRR P, T, U) ☐ Depleted Matrix (F3) ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U) ☐ Redox Dark Surface (F6) ☐ Muck Presence (A8) (LRR U) ☐ Depleted Dark Surface (F7) ☐ 1 cm Muck (A9) (LRR P, T) ☐ Redox Depressions (F8) ☐ Depleted Below Dark Surface (A11) ☐ Marl (F10) (LRR U) ☐ Thick Dark Surface (A12) ☐ Depleted Ochric (F11) (MLRA 151) ☐ Coast Prairie Redox (A16) (MLRA 150A) ☐ Iron-Manganese Masses (F12) (LRR O, P, T) ☐ Sandy Mucky Mineral (S1) (LRR O, S) ☐ Umbric Surface (F13) (LRR P, T, U) ☐ Sandy Gleyed Matrix (S4) ☐ Delta Ochric (F17) (MLRA 151) ☐ Sandy Redox (S5) ☐ Reduced Vertic (F18) (MLRA 150A, 150B) ☐ Stripped Matrix (S6) ☐ Piedmont Floodplain Soils (F19) (MLRA 149A) ☐ Dark Surface (S7) (LRR P, S, T, U) ☐ Anomalous Bright Floodplain Soils (F20) ☐ Polyvalue Below Surface (S8) (MLRA 149A, 153C, 153D) ☐ (LRR S, T, U) ☐ Very Shallow Dark Surface (F22) ☐ (MLRA 138, 152A in FL, 154) Indicators for Problematic Hydric Soils³: ☐ 1 cm Muck (A9) (LRR O) ☐ 2 cm Muck (A10) (LRR S) ☐ Coast Prairie Redox (A16) ☐ (outside MLRA 150A) ☐ Reduced Vertic (F18) ☐ (outside MLRA 150A, 150B) ☐ Piedmont Floodplain Soils (F19) (LRR P, T) ☐ Anomalous Bright Floodplain Soils (F20) ☐ (MLRA 153B) ☐ Red Parent Material (F21) ☐ Very Shallow Dark Surface (F22) ☐ (outside MLRA 138, 152A in FL, 154) ☐ Barrier Islands Low Chroma Matrix (TS7) ☐ (MLRA 153B, 153D) ☐ Other (Explain in Remarks) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Restrictive Layer (if observed): Type: _____ Depth (inches): _____							Hydric Soil Present? Yes _____ No <u> X </u>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Segrest Farms City/County: Shorter / Macon Sampling Date: 4-17-2026

Applicant/Owner: _____ State: AL Sampling Point: 701

Investigator(s): Doug Dallas, Garth Crow; BioResources, LLC. Section, Township, Range: S 26, T 17 N, R 21 E

Landform (hillside, terrace, etc.): Bottom Local relief (concave, convex, none): Concave Slope (%): 0-2%

Subregion (LRR or MLRA): LRR P Lat: 32.4224 N Long: 85.9199 W Datum: None

Soil Map Unit Name: KmA - Kinston-Mooreville complex, 0-1% slopes, frequently flooded NWI classification: PFO1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: MLRA 133C is not in the drop down list. The area is experiencing moderate drought conditions.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) (LRR U) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☒ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☒ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☒ FAC-Neutral Test (D5) ☐ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>11</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 	
Remarks: 	

Sampling Point: 701

Tree Stratum (Plot size: 25')	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Liquidambar styraciflua</u>	30	Yes	FAC	
2. <u>Nyssa biflora</u>	30	Yes	OBL	
3. <u>Acer rubrum</u>	20	Yes	FAC	
4. <u>Quercus nigra</u>	10	No	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	90 = Total Cover			
50% of total cover: 45	20% of total cover: 18			
Sapling/Shrub Stratum (Plot size: 25')				
1. <u>Liquidambar styraciflua</u>	4	Yes	FAC	
2. <u>Acer rubrum</u>	3	Yes	FAC	
3. <u>Nyssa biflora</u>	2	Yes	OBL	
4. <u>Ulmus alata</u>	1	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	10 = Total Cover			
50% of total cover: 5	20% of total cover: 2			
Herb Stratum (Plot size: 10')				
1. <u>Chasmanthium laxum</u>	5	Yes	FACW	
2. <u>Liquidambar styraciflua</u>	1	No	FAC	
3. <u>Quercus nigra</u>	1	No	FAC	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	7 = Total Cover			
50% of total cover: 4	20% of total cover: 2			
Woody Vine Stratum (Plot size: 25')				
1. -----	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>32</u>	x 1 = <u>32</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>69</u>	x 3 = <u>207</u>
FACU species <u>1</u>	x 4 = <u>4</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>107</u> (A)	<u>253</u> (B)
Prevalence Index = B/A = <u>2.36</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 X 2 - Dominance Test is >50%

 X 3 - Prevalence Index is ≤3.0¹

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2						Loamy/Clayey	Sandy clay loam
4-8	10YR 4/1	85	5YR 4/6	15	C	PL	Loamy/Clayey	Prominent redox concentrations
8-16	10YR 5/1	75	7.5YR 4/6	25	C	PL/M	Loamy/Clayey	Prominent redox concentrations
								Sandy clay loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Thin Dark Surface (S9) (LRR S, T, U)	☐ 1 cm Muck (A9) (LRR O)
☐ Histic Epipedon (A2)	☐ Barrier Islands 1 cm Muck (S12)	☐ 2 cm Muck (A10) (LRR S)
☐ Black Histic (A3)	(MLRA 153B, 153D)	☒ Coast Prairie Redox (A16)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1) (LRR O)	(outside MLRA 150A)
☐ Stratified Layers (A5)	☐ Loamy Gleyed Matrix (F2)	☒ Reduced Vertic (F18)
☒ Organic Bodies (A6) (LRR P, T, U)	☒ Depleted Matrix (F3)	(outside MLRA 150A, 150B)
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)	☐ Redox Dark Surface (F6)	☒ Piedmont Floodplain Soils (F19) (LRR P, T)
☐ Muck Presence (A8) (LRR U)	☐ Depleted Dark Surface (F7)	☐ Anomalous Bright Floodplain Soils (F20)
☐ 1 cm Muck (A9) (LRR P, T)	☒ Redox Depressions (F8)	(MLRA 153B)
☒ Depleted Below Dark Surface (A11)	☐ Marl (F10) (LRR U)	☐ Red Parent Material (F21)
☐ Thick Dark Surface (A12)	☐ Depleted Ochric (F11) (MLRA 151)	☐ Very Shallow Dark Surface (F22)
☐ Coast Prairie Redox (A16) (MLRA 150A)	☐ Iron-Manganese Masses (F12) (LRR O, P, T)	(outside MLRA 138, 152A in FL, 154)
☐ Sandy Mucky Mineral (S1) (LRR O, S)	☐ Umbric Surface (F13) (LRR P, T, U)	☐ Barrier Islands Low Chroma Matrix (TS7)
☐ Sandy Gleyed Matrix (S4)	☐ Delta Ochric (F17) (MLRA 151)	(MLRA 153B, 153D)
☐ Sandy Redox (S5)	☐ Reduced Vertic (F18) (MLRA 150A, 150B)	☐ Other (Explain in Remarks)
☐ Stripped Matrix (S6)	☐ Piedmont Floodplain Soils (F19) (MLRA 149A)	
☐ Dark Surface (S7) (LRR P, S, T, U)	☐ Anomalous Bright Floodplain Soils (F20)	
☐ Polyvalue Below Surface (S8)	(MLRA 149A, 153C, 153D)	
(LRR S, T, U)	☐ Very Shallow Dark Surface (F22)	
	(MLRA 138, 152A in FL, 154)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No ☐
Remarks:	

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Segrest Farms City/County: Shorter / Macon Sampling Date: 4-17-2026

Applicant/Owner: _____ State: AL Sampling Point: 702

Investigator(s): Doug Dallas, Garth Crow; BioResources, LLC. Section, Township, Range: S 26, T 17 N, R 21 E

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2-4%

Subregion (LRR or MLRA): LRR P Lat: 32.4222 N Long: 85.9197 W Datum: None

Soil Map Unit Name: KmA - Kinston-Mooreville complex, 0-1% slopes, frequently flooded NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: MLRA 133C is not in the drop down list. The area is experiencing moderate drought conditions.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) (LRR U) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: No indicators of wetland hydrology were observed.	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 702

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u><i>Pinus taeda</i></u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>87.5%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>21</u></td> <td>x 2 = <u>42</u></td> </tr> <tr> <td>FAC species <u>118</u></td> <td>x 3 = <u>354</u></td> </tr> <tr> <td>FACU species <u>11</u></td> <td>x 4 = <u>44</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>150</u> (A)</td> <td><u>440</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.93</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>21</u>	x 2 = <u>42</u>	FAC species <u>118</u>	x 3 = <u>354</u>	FACU species <u>11</u>	x 4 = <u>44</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>150</u> (A)	<u>440</u> (B)	Prevalence Index = B/A = <u>2.93</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>21</u>	x 2 = <u>42</u>																			
FAC species <u>118</u>	x 3 = <u>354</u>																			
FACU species <u>11</u>	x 4 = <u>44</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>150</u> (A)	<u>440</u> (B)																			
Prevalence Index = B/A = <u>2.93</u>																				
2. <u><i>Liquidambar styraciflua</i></u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u><i>Acer rubrum</i></u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
4. <u><i>Quercus falcata</i></u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>100</u> = Total Cover																				
50% of total cover: <u>50</u>		20% of total cover: <u>20</u>																		
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. <u><i>Liquidambar styraciflua</i></u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u><i>Pinus taeda</i></u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u><i>Quercus falcata</i></u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
4. <u><i>Acer rubrum</i></u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
5. <u><i>Magnolia virginiana</i></u>	<u>1</u>	<u>No</u>	<u>FACW</u>																	
6. <u><i>Diospyros virginiana</i></u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>19</u> = Total Cover																				
50% of total cover: <u>10</u>		20% of total cover: <u>4</u>																		
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u><i>Chasmanthium laxum</i></u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height.																
2. <u><i>Pteridium aquilinum</i></u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>25</u> = Total Cover																				
50% of total cover: <u>13</u>		20% of total cover: <u>5</u>																		
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. <u><i>Vitis rotundifolia</i></u>	<u>3</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>																
2. <u><i>Gelsemium sempervirens</i></u>	<u>2</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u><i>Toxicodendron radicans</i></u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>6</u> = Total Cover																				
50% of total cover: <u>3</u>		20% of total cover: <u>2</u>																		

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/2						Loamy/Clayey	Sandy loam
5-9	10YR 4/2						Loamy/Clayey	Sandy loam
9-16	10YR 4/3						Loamy/Clayey	Sandy loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Thin Dark Surface (S9) (LRR S, T, U) ☐ Histic Epipedon (A2) ☐ Barrier Islands 1 cm Muck (S12) ☐ Black Histic (A3) (MLRA 153B, 153D) ☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1) (LRR O) ☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2) ☒ Organic Bodies (A6) (LRR P, T, U) ☐ Depleted Matrix (F3) ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U) ☐ Redox Dark Surface (F6) ☐ Muck Presence (A8) (LRR U) ☐ Depleted Dark Surface (F7) ☐ 1 cm Muck (A9) (LRR P, T) ☐ Redox Depressions (F8) ☐ Depleted Below Dark Surface (A11) ☐ Marl (F10) (LRR U) ☐ Thick Dark Surface (A12) ☐ Depleted Ochric (F11) (MLRA 151) ☐ Coast Prairie Redox (A16) (MLRA 150A) ☐ Iron-Manganese Masses (F12) (LRR O, P, T) ☐ Sandy Mucky Mineral (S1) (LRR O, S) ☐ Umbric Surface (F13) (LRR P, T, U) ☐ Sandy Gleyed Matrix (S4) ☐ Delta Ochric (F17) (MLRA 151) ☐ Sandy Redox (S5) ☐ Reduced Vertic (F18) (MLRA 150A, 150B) ☐ Stripped Matrix (S6) ☐ Piedmont Floodplain Soils (F19) (MLRA 149A) ☐ Dark Surface (S7) (LRR P, S, T, U) ☐ Anomalous Bright Floodplain Soils (F20) ☐ Polyvalue Below Surface (S8) (MLRA 149A, 153C, 153D) ☐ (LRR S, T, U) ☐ Very Shallow Dark Surface (F22) ☐ (MLRA 138, 152A in FL, 154) Indicators for Problematic Hydric Soils³: ☐ 1 cm Muck (A9) (LRR O) ☐ 2 cm Muck (A10) (LRR S) ☐ Coast Prairie Redox (A16) ☐ (outside MLRA 150A) ☐ Reduced Vertic (F18) ☐ (outside MLRA 150A, 150B) ☐ Piedmont Floodplain Soils (F19) (LRR P, T) ☐ Anomalous Bright Floodplain Soils (F20) ☐ (MLRA 153B) ☐ Red Parent Material (F21) ☐ Very Shallow Dark Surface (F22) ☐ (outside MLRA 138, 152A in FL, 154) ☐ Barrier Islands Low Chroma Matrix (TS7) ☐ (MLRA 153B, 153D) ☐ Other (Explain in Remarks) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Restrictive Layer (if observed): Type: _____ Depth (inches): _____							Hydric Soil Present? Yes _____ No <u> X </u>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Segrest Farm City/County: Shorter / Macon Sampling Date: 3-2-2026

Applicant/Owner: _____ State: AL Sampling Point: 801

Investigator(s): Doug Dallas, Garth Crow; BioResources, LLC. Section, Township, Range: S 26, T 17 N, R 21 E

Landform (hillside, terrace, etc.): Isolated Wetland Local relief (concave, convex, none): Concave Slope (%): 0-2%

Subregion (LRR or MLRA): LRR P Lat: 32.4211 N Long: 85.9183 W Datum: None

Soil Map Unit Name: FuA: Fluvaquents silt loam, freq. ponded, 0-2% slopes, freq. flooded NWI classification: PFO1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: MLRA 133C is not in the drop down list.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) (LRR U) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>8</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 801

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus nigra</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>88.9%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>162</u></td> <td>x 3 = <u>486</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>172</u> (A)</td> <td><u>511</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.97</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>162</u>	x 3 = <u>486</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>172</u> (A)	<u>511</u> (B)	Prevalence Index = B/A = <u>2.97</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>5</u>	x 1 = <u>5</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>162</u>	x 3 = <u>486</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>172</u> (A)	<u>511</u> (B)																			
Prevalence Index = B/A = <u>2.97</u>																				
2. <u>Acer rubrum</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Liquidambar styraciflua</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>80</u> = Total Cover																				
50% of total cover: <u>40</u>		20% of total cover: <u>16</u>																		
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. <u>Ligustrum sinense</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> X 2 - Dominance Test is >50% <u> </u> X 3 - Prevalence Index is ≤3.0 ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) _____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Acer rubrum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
3. <u>Quercus nigra</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Carpinus caroliniana</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>65</u> = Total Cover																				
50% of total cover: <u>33</u>		20% of total cover: <u>13</u>																		
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Dulichium arundinaceum</u>	<u>5</u>	<u>Yes</u>	<u>OBL</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <u> X </u> No <u> </u>																
2. <u>Lonicera japonica</u>	<u>3</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Lygodium japonicum</u>	<u>3</u>	<u>Yes</u>	<u>FAC</u>																	
4. <u>Ligustrum sinense</u>	<u>3</u>	<u>Yes</u>	<u>FAC</u>																	
5. <u>Galium aparine</u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>15</u> = Total Cover																				
50% of total cover: <u>8</u>		20% of total cover: <u>3</u>																		
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. <u>Vitis rotundifolia</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
2. <u>Smilax rotundifolia</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
3. <u>Lonicera japonica</u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>12</u> = Total Cover																				
50% of total cover: <u>6</u>		20% of total cover: <u>3</u>																		

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/2						Loamy/Clayey	Sandy clay loam
2-10	10YR 4/2	95	7.5YR 4/6	5	C	PL	Loamy/Clayey	Prominent redox concentrations
10-16	10YR 4/2	75	5YR 4/6	25	C	PL/M	Loamy/Clayey	Prominent redox concentrations
								Clay loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Thin Dark Surface (S9) (LRR S, T, U) ☐ Histic Epipedon (A2) ☐ Barrier Islands 1 cm Muck (S12) ☐ Black Histic (A3) (MLRA 153B, 153D) ☐ Hydrogen Sulfide (A4) ☐ Loamy Mucky Mineral (F1) (LRR O) ☐ Stratified Layers (A5) ☐ Loamy Gleyed Matrix (F2) ☐ Organic Bodies (A6) (LRR P, T, U) ☒ Depleted Matrix (F3) ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U) ☐ Redox Dark Surface (F6) ☐ Muck Presence (A8) (LRR U) ☐ Depleted Dark Surface (F7) ☐ 1 cm Muck (A9) (LRR P, T) ☐ Redox Depressions (F8) ☐ Depleted Below Dark Surface (A11) ☐ Marl (F10) (LRR U) ☐ Thick Dark Surface (A12) ☐ Depleted Ochric (F11) (MLRA 151) ☐ Coast Prairie Redox (A16) (MLRA 150A) ☐ Iron-Manganese Masses (F12) (LRR O, P, T) ☐ Sandy Mucky Mineral (S1) (LRR O, S) ☐ Umbric Surface (F13) (LRR P, T, U) ☐ Sandy Gleyed Matrix (S4) ☐ Delta Ochric (F17) (MLRA 151) ☐ Sandy Redox (S5) ☐ Reduced Vertic (F18) (MLRA 150A, 150B) ☐ Stripped Matrix (S6) ☐ Piedmont Floodplain Soils (F19) (MLRA 149A) ☐ Dark Surface (S7) (LRR P, S, T, U) ☐ Anomalous Bright Floodplain Soils (F20) ☐ Polyvalue Below Surface (S8) (MLRA 149A, 153C, 153D) ☐ (LRR S, T, U) ☐ Very Shallow Dark Surface (F22) ☐ (MLRA 138, 152A in FL, 154) Indicators for Problematic Hydric Soils³: ☐ 1 cm Muck (A9) (LRR O) ☐ 2 cm Muck (A10) (LRR S) ☐ Coast Prairie Redox (A16) ☐ (outside MLRA 150A) ☐ Reduced Vertic (F18) ☐ (outside MLRA 150A, 150B) ☐ Piedmont Floodplain Soils (F19) (LRR P, T) ☐ Anomalous Bright Floodplain Soils (F20) ☐ (MLRA 153B) ☐ Red Parent Material (F21) ☐ Very Shallow Dark Surface (F22) ☐ (outside MLRA 138, 152A in FL, 154) ☐ Barrier Islands Low Chroma Matrix (TS7) ☐ (MLRA 153B, 153D) ☐ Other (Explain in Remarks)								
Restrictive Layer (if observed): Type: _____ Depth (inches): _____							Hydric Soil Present? Yes _____ No _____	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: <u>Segrest Farm</u>	City/County: <u>Shorter / Macon</u>	Sampling Date: <u>3-2-2026</u>
Applicant/Owner: _____		State: <u>AL</u> Sampling Point: <u>802</u>
Investigator(s): <u>Doug Dallas, Garth Crow; BioResources, LLC.</u> Section, Township, Range: <u>S 26, T 17 N, R 21 E</u>		
Landform (hillside, terrace, etc.): <u>Hillside</u>	Local relief (concave, convex, none): <u>None</u>	Slope (%): <u>1-3%</u>
Subregion (LRR or MLRA): <u>LRR P</u>	Lat: <u>32.4210 N</u>	Long: <u>85.9180 W</u> Datum: <u>None</u>
Soil Map Unit Name: <u>EuA: Eunola sandy loam, 0-2% slopes, rarely flooded</u>		NWI classification: <u>Upland</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>X</u> No _____ (If no, explain in Remarks.)		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly disturbed? Are "Normal Circumstances" present? Yes <u>X</u> No _____		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic? (If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<table style="width: 100%;"> <tr> <td style="width: 60%;">Is the Sampled Area within a Wetland?</td> <td style="width: 40%;">Yes _____ No <u>X</u></td> </tr> </table>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>		
Remarks: MLRA 133C is not in the drop down list.			

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) (LRR U) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Sphagnum Moss (D8) (LRR T, U)		
Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>13</u> (includes capillary fringe)	<table style="width: 100%;"> <tr> <td style="width: 60%;">Wetland Hydrology Present?</td> <td style="width: 40%;">Yes _____ No <u>X</u></td> </tr> </table>	Wetland Hydrology Present?	Yes _____ No <u>X</u>
Wetland Hydrology Present?	Yes _____ No <u>X</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Saturated soils are located below 12".			

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 802

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Liquidambar styraciflua</u>	<u>60</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>18</u></td> <td>x 2 = <u>36</u></td> </tr> <tr> <td>FAC species <u>103</u></td> <td>x 3 = <u>309</u></td> </tr> <tr> <td>FACU species <u>12</u></td> <td>x 4 = <u>48</u></td> </tr> <tr> <td>UPL species <u>15</u></td> <td>x 5 = <u>75</u></td> </tr> <tr> <td>Column Totals: <u>148</u> (A)</td> <td><u>468</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>3.16</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>18</u>	x 2 = <u>36</u>	FAC species <u>103</u>	x 3 = <u>309</u>	FACU species <u>12</u>	x 4 = <u>48</u>	UPL species <u>15</u>	x 5 = <u>75</u>	Column Totals: <u>148</u> (A)	<u>468</u> (B)	Prevalence Index = B/A = <u>3.16</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>18</u>	x 2 = <u>36</u>																			
FAC species <u>103</u>	x 3 = <u>309</u>																			
FACU species <u>12</u>	x 4 = <u>48</u>																			
UPL species <u>15</u>	x 5 = <u>75</u>																			
Column Totals: <u>148</u> (A)	<u>468</u> (B)																			
Prevalence Index = B/A = <u>3.16</u>																				
2. <u>Celtis laevigata</u>	<u>15</u>	<u>No</u>	<u>FACW</u>																	
3. <u>Acer rubrum</u>	<u>15</u>	<u>No</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>90</u> =Total Cover																				
50% of total cover: <u>45</u>		20% of total cover: <u>18</u>																		
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. <u>Ligustrum sinense</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>_____</u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Callicarpa americana</u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
3. <u>Liquidambar styraciflua</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Quercus nigra</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
<u>8</u> =Total Cover																				
50% of total cover: <u>4</u>		20% of total cover: <u>2</u>																		
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Daucus carota</u>	<u>15</u>	<u>Yes</u>	<u>UPL</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <u>X</u> No _____																
2. <u>Carex</u>	<u>10</u>	<u>Yes</u>	_____																	
3. <u>Lygodium japonicum</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
4. <u>Galium aparine</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
5. <u>Lonicera japonica</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
6. <u>Boehmeria cylindrica</u>	<u>3</u>	<u>No</u>	<u>FACW</u>																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>48</u> =Total Cover																				
50% of total cover: <u>24</u>		20% of total cover: <u>10</u>																		
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. <u>Vitis rotundifolia</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
2. <u>Smilax rotundifolia</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
3. <u>Lonicera japonica</u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>12</u> =Total Cover																				
50% of total cover: <u>6</u>		20% of total cover: <u>3</u>																		

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/3						Loamy/Clayey	Sandy clay loam
2-13	10YR 4/3						Loamy/Clayey	Clay loam
13-16	10YR 4/3	95	7.5YR 4/6	25	C	PL	Loamy/Clayey	Prominent redox concentrations
								Clay loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.
²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) ☐ Organic Bodies (A6) (LRR P, T, U) ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U) ☐ Muck Presence (A8) (LRR U) ☐ 1 cm Muck (A9) (LRR P, T) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Coast Prairie Redox (A16) (MLRA 150A) ☐ Sandy Mucky Mineral (S1) (LRR O, S) ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Dark Surface (S7) (LRR P, S, T, U) ☐ Polyvalue Below Surface (S8) ☐ (LRR S, T, U)	☐ Thin Dark Surface (S9) (LRR S, T, U) ☐ Barrier Islands 1 cm Muck (S12) ☐ (MLRA 153B, 153D) ☐ Loamy Mucky Mineral (F1) (LRR O) ☐ Loamy Gleyed Matrix (F2) ☐ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ Marl (F10) (LRR U) ☐ Depleted Ochric (F11) (MLRA 151) ☐ Iron-Manganese Masses (F12) (LRR O, P, T) ☐ Umbric Surface (F13) (LRR P, T, U) ☐ Delta Ochric (F17) (MLRA 151) ☐ Reduced Vertic (F18) (MLRA 150A, 150B) ☐ Piedmont Floodplain Soils (F19) (MLRA 149A) ☐ Anomalous Bright Floodplain Soils (F20) ☐ (MLRA 149A, 153C, 153D) ☐ Very Shallow Dark Surface (F22) ☐ (MLRA 138, 152A in FL, 154)
	☐ 1 cm Muck (A9) (LRR O) ☐ 2 cm Muck (A10) (LRR S) ☐ Coast Prairie Redox (A16) ☐ (outside MLRA 150A) ☐ Reduced Vertic (F18) ☐ (outside MLRA 150A, 150B) ☐ Piedmont Floodplain Soils (F19) (LRR P, T) ☐ Anomalous Bright Floodplain Soils (F20) ☐ (MLRA 153B) ☐ Red Parent Material (F21) ☐ Very Shallow Dark Surface (F22) ☐ (outside MLRA 138, 152A in FL, 154) ☐ Barrier Islands Low Chroma Matrix (TS7) ☐ (MLRA 153B, 153D) ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u> X </u>
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Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	<i>OMB Control #: 0710-0024, Exp: 11/30/2024</i> <i>Requirement Control Symbol EXEMPT:</i> <i>(Authority: AR 335-15, paragraph 5-2a)</i>
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Project/Site: <u>Project Lotus Site</u>	City/County: <u>Shorter / Macon</u>	Sampling Date: <u>7-24-2024</u>
Applicant/Owner: <u>DYCM Power, LLC</u>	State: <u>AL</u>	Sampling Point: <u>901</u>
Investigator(s): <u>Doug Dallas, Garth Crow; BioResources LLC</u> Section, Township, Range: <u>S 34, T 17 N, R 21 E</u>		
Landform (hillside, terrace, etc.): <u>Bottom</u>	Local relief (concave, convex, none): <u>Concave</u>	Slope (%): <u>2-4%</u>
Subregion (LRR or MLRA): <u>LRR P</u>	Lat: <u>32.4129 N</u>	Long: <u>85.9433 W</u> Datum: <u>None</u>
Soil Map Unit Name: <u>BaB - Bama fine sandy loam, 2-5% slopes</u>		NWI classification: <u>Upland</u>

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation Y , Soil Y , or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes No X

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: MLRA 133C is not in the drop down list. The data point is located in a vegetated swale on the edge of a corn field. The USGS quad depicts a stream in the swale.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) (LRR U) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes <u> </u> No <u> </u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u> </u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u> </u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No indicators of wetland hydrology were observed.	

Sampling Point: 901

<u>Tree Stratum</u>	(Plot size: _____ 25')	Absolute % Cover	Dominant Species?	Indicator Status
1.	-----			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		=Total Cover		
50% of total cover:			20% of total cover:	
<u>Sapling/Shrub Stratum</u>	(Plot size: _____ 25')			
1.	-----			
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		=Total Cover		
50% of total cover:			20% of total cover:	
<u>Herb Stratum</u>	(Plot size: _____ 10')			
1.	<u>Eleusine indica</u>	30	Yes	FACU
2.	<u>Digitaria sanguinalis</u>	30	Yes	FACU
3.	<u>Sorghum halepense</u>	30	Yes	FACU
4.	<u>Boehmeria cylindrica</u>	3	No	FACW
5.	<u>Chenopodium album</u>	1	No	FACU
6.	<u>Chamaesyce maculate</u>	1	No	FACU
7.				
8.				
9.				
10.				
11.				
12.				
		95 =Total Cover		
50% of total cover:		48	20% of total cover: 19	
<u>Woody Vine Stratum</u>	(Plot size: _____ 25')			
1.	<u>Pueraria montana</u>	20	Yes	FACU
2.				
3.				
4.				
5.				
		20 =Total Cover		
50% of total cover:		10	20% of total cover: 4	

Remarks: (If observed, list morphological adaptations below.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>3</u>	x 2 = <u>6</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>112</u>	x 4 = <u>448</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u> (A)	<u>454</u> (B)
Prevalence Index = B/A = <u>3.95</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes	<u> </u>	No	<u>X</u>
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Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/3						Loamy/Clayey	Sandy clay loam
4-7	10YR 4/3						Loamy/Clayey	Sandy clay loam
7-10	5YR 4/6						Loamy/Clayey	Sandy clay loam
10-16	5YR 4/3						Loamy/Clayey	Sandy clay loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					Indicators for Problematic Hydric Soils³:			
☐ Histosol (A1)		☐ Thin Dark Surface (S9) (LRR S, T, U)		☐ 1 cm Muck (A9) (LRR O)				
☐ Histic Epipedon (A2)		☐ Barrier Islands 1 cm Muck (S12)		☐ 2 cm Muck (A10) (LRR S)				
☐ Black Histic (A3)		☐ (MLRA 153B, 153D)		☐ Coast Prairie Redox (A16)				
☐ Hydrogen Sulfide (A4)		☐ Loamy Mucky Mineral (F1) (LRR O)		☐ (outside MLRA 150A)				
☐ Stratified Layers (A5)		☐ Loamy Gleyed Matrix (F2)		☐ Reduced Vertic (F18)				
☐ Organic Bodies (A6) (LRR P, T, U)		☐ Depleted Matrix (F3)		☐ (outside MLRA 150A, 150B)				
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)		☐ Redox Dark Surface (F6)		☐ Piedmont Floodplain Soils (F19) (LRR P, T)				
☐ Muck Presence (A8) (LRR U)		☐ Depleted Dark Surface (F7)		☐ Anomalous Bright Floodplain Soils (F20)				
☐ 1 cm Muck (A9) (LRR P, T)		☐ Redox Depressions (F8)		☐ (MLRA 153B)				
☐ Depleted Below Dark Surface (A11)		☐ Marl (F10) (LRR U)		☐ Red Parent Material (F21)				
☐ Thick Dark Surface (A12)		☐ Depleted Ochric (F11) (MLRA 151)		☐ Very Shallow Dark Surface (F22)				
☐ Coast Prairie Redox (A16) (MLRA 150A)		☐ Iron-Manganese Masses (F12) (LRR O, P, T)		☐ (outside MLRA 138, 152A in FL, 154)				
☐ Sandy Mucky Mineral (S1) (LRR O, S)		☐ Umbric Surface (F13) (LRR P, T, U)		☐ Barrier Islands Low Chroma Matrix (TS7)				
☐ Sandy Gleyed Matrix (S4)		☐ Delta Ochric (F17) (MLRA 151)		☐ (MLRA 153B, 153D)				
☐ Sandy Redox (S5)		☐ Reduced Vertic (F18) (MLRA 150A, 150B)		☐ Other (Explain in Remarks)				
☐ Stripped Matrix (S6)		☐ Piedmont Floodplain Soils (F19) (MLRA 149A)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.				
☐ Dark Surface (S7) (LRR P, S, T, U)		☐ Anomalous Bright Floodplain Soils (F20)						
☐ Polyvalue Below Surface (S8)		☐ (MLRA 149A, 153C, 153D)						
☐ (LRR S, T, U)		☐ Very Shallow Dark Surface (F22)						
☐ (MLRA 138, 152A in FL, 154)								
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes _____ No <u>X</u>	
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: <u>Project Lotus Site</u>	City/County: <u>Shorter / Macon</u>	Sampling Date: <u>7-24-2024</u>
Applicant/Owner: <u>DYCM Power, LLC</u>	State: <u>AL</u>	Sampling Point: <u>902</u>
Investigator(s): <u>Doug Dallas, Garth Crow; BioResources, LLC</u> Section, Township, Range: <u>S 34, T 17 N, R 21 E</u>		
Landform (hillside, terrace, etc.): <u>Bottom</u>	Local relief (concave, convex, none): <u>Concave</u>	Slope (%): <u>2-4%</u>
Subregion (LRR or MLRA): <u>LRR P</u>	Lat: <u>32.4158 N</u>	Long: <u>85.9350 W</u> Datum: <u>None</u>
Soil Map Unit Name: <u>BaB - Bama fine sandy loam, 2-5% slopes</u>		NWI classification: <u>Upland</u>

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation Y, Soil Y, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes No X

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: MLRA 133C is not in the drop down list. The data point is located in a vegetated swale on the edge of a corn field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u> </u> Surface Water (A1) <u> </u> High Water Table (A2) <u> </u> Saturation (A3) <u> </u> Water Marks (B1) <u> </u> Sediment Deposits (B2) <u> </u> Drift Deposits (B3) <u> </u> Algal Mat or Crust (B4) <u> </u> Iron Deposits (B5) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Water-Stained Leaves (B9) <u> </u> Aquatic Fauna (B13) <u> </u> Marl Deposits (B15) (LRR U) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Thin Muck Surface (C7) <u> </u> Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> <u> </u> Surface Soil Cracks (B6) <u> </u> Sparsely Vegetated Concave Surface (B8) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> FAC-Neutral Test (D5) <u> </u> Sphagnum Moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No indicators of wetland hydrology were observed.	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: 902

Tree Stratum (Plot size: <u>25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>-----</u>	<u> </u>	<u> </u>	<u> </u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u> </u> = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>53</u></td> <td>x 4 = <u>212</u></td> </tr> <tr> <td>UPL species <u>7</u></td> <td>x 5 = <u>35</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>272</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.63</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>53</u>	x 4 = <u>212</u>	UPL species <u>7</u>	x 5 = <u>35</u>	Column Totals: <u>75</u> (A)	<u>272</u> (B)	Prevalence Index = B/A = <u>3.63</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>10</u>	x 1 = <u>10</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>53</u>	x 4 = <u>212</u>																			
UPL species <u>7</u>	x 5 = <u>35</u>																			
Column Totals: <u>75</u> (A)	<u>272</u> (B)																			
Prevalence Index = B/A = <u>3.63</u>																				
50% of total cover: <u> </u> 20% of total cover: <u> </u>																				
Sapling/Shrub Stratum (Plot size: <u>25'</u>)																				
1. <u>-----</u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u> </u> = Total Cover																				
50% of total cover: <u> </u> 20% of total cover: <u> </u>																				
Herb Stratum (Plot size: <u>10'</u>)																				
1. <u>Eleusine indica</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>																	
2. <u>Digitaria sanguinalis</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Justicia americana</u>	<u>10</u>	<u>No</u>	<u>OBL</u>																	
4. <u>Acalypha gracilens</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
5. <u>Portulaca grandiflora</u>	<u>5</u>	<u>No</u>	<u>UPL</u>																	
6. <u>Chenopodium album</u>	<u>3</u>	<u>No</u>	<u>FACU</u>																	
7. <u>Solidago altissima</u>	<u>3</u>	<u>No</u>	<u>FACU</u>																	
8. <u>Senna obtusifolia</u>	<u>2</u>	<u>No</u>	<u>FACU</u>																	
9. <u>Ipomoea purpurea</u>	<u>2</u>	<u>No</u>	<u>UPL</u>																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
12. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u>75</u> = Total Cover																				
50% of total cover: <u>38</u> 20% of total cover: <u>15</u>																				
Woody Vine Stratum (Plot size: <u>25'</u>)																				
1. <u>-----</u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u> </u> = Total Cover																				
50% of total cover: <u> </u> 20% of total cover: <u> </u>																				
Hydrophytic Vegetation Present?																				
Yes <u> </u> No <u>X</u>																				

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes No X

Remarks: (If observed, list morphological adaptations below.)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	5YR 4/4						Loamy/Clayey	Sandy clay loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						Indicators for Problematic Hydric Soils³:		
☐ Histosol (A1)			☐ Thin Dark Surface (S9) (LRR S, T, U)			☐ 1 cm Muck (A9) (LRR O)		
☐ Histic Epipedon (A2)			☐ Barrier Islands 1 cm Muck (S12)			☐ 2 cm Muck (A10) (LRR S)		
☐ Black Histic (A3)			☐ (MLRA 153B, 153D)			☐ Coast Prairie Redox (A16)		
☐ Hydrogen Sulfide (A4)			☐ Loamy Mucky Mineral (F1) (LRR O)			☐ (outside MLRA 150A)		
☐ Stratified Layers (A5)			☐ Loamy Gleyed Matrix (F2)			☐ Reduced Vertic (F18)		
☐ Organic Bodies (A6) (LRR P, T, U)			☐ Depleted Matrix (F3)			☐ (outside MLRA 150A, 150B)		
☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)			☐ Redox Dark Surface (F6)			☐ Piedmont Floodplain Soils (F19) (LRR P, T)		
☐ Muck Presence (A8) (LRR U)			☐ Depleted Dark Surface (F7)			☐ Anomalous Bright Floodplain Soils (F20)		
☐ 1 cm Muck (A9) (LRR P, T)			☐ Redox Depressions (F8)			☐ (MLRA 153B)		
☐ Depleted Below Dark Surface (A11)			☐ Marl (F10) (LRR U)			☐ Red Parent Material (F21)		
☐ Thick Dark Surface (A12)			☐ Depleted Ochric (F11) (MLRA 151)			☐ Very Shallow Dark Surface (F22)		
☐ Coast Prairie Redox (A16) (MLRA 150A)			☐ Iron-Manganese Masses (F12) (LRR O, P, T)			☐ (outside MLRA 138, 152A in FL, 154)		
☐ Sandy Mucky Mineral (S1) (LRR O, S)			☐ Umbric Surface (F13) (LRR P, T, U)			☐ Barrier Islands Low Chroma Matrix (TS7)		
☐ Sandy Gleyed Matrix (S4)			☐ Delta Ochric (F17) (MLRA 151)			☐ (MLRA 153B, 153D)		
☐ Sandy Redox (S5)			☐ Reduced Vertic (F18) (MLRA 150A, 150B)			☐ Other (Explain in Remarks)		
☐ Stripped Matrix (S6)			☐ Piedmont Floodplain Soils (F19) (MLRA 149A)					
☐ Dark Surface (S7) (LRR P, S, T, U)			☐ Anomalous Bright Floodplain Soils (F20)					
☐ Polyvalue Below Surface (S8)			☐ (MLRA 149A, 153C, 153D)					
☐ (LRR S, T, U)			☐ Very Shallow Dark Surface (F22)					
			☐ (MLRA 138, 152A in FL, 154)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____								
						Hydric Soil Present? Yes _____ No <u> X </u>		
Remarks:								

Spill Prevention, Control, and Countermeasure Plan

Location:

Facility Phone Number

Facility contact and Address: Central Alabama Aggregates LLC (CAA), Mr. Taylor
Rice, Member, 334.717.1100, 22 Cove Street, Pike Road, AL 36064

1. This facility has never experienced a spill from any fuel or other chemical storage tanks.
2. The containment structures will be located in an area that is not subject to periodic flooding.
3. This plan provides for the containment of the following:

<u>Na. of Tanks</u>	<u>Total Capacity</u>	<u>Material</u>
1	2000 gallons	Diesel

The area around the tanks is enclosed by a dike, which exceeds the volume capacity of the largest tank in the bermed area by 10 %.

4. See sheet with U.S.G.S. 7.5 Minute Series Topo Map for nearest surface water location.
5. The dikes are constructed of impervious material around the tank area. There is a 2' minimum pipe with a manual gate valve, which allows rainwater discharge when it is needed. The valve remains closed at all times and is to be locked until the diked area collects enough rainwater to require draining. After an inspection of the water to determine if any pollutants are present, the valve is opened to allow the proper drainage, and then immediately closed again and re-locked.

The containment system is located such that rainwater released through normal de-watering drains to a permitted treatment structure. If pollutants (oil) are present in the rainwater, the pollutants will be removed from the water prior to draining the water. Pollutants will be disposed of in accordance with existing State and Federal regulations. In addition, a log will be maintained which indicates the date when the containment structure was de-watered, the person conducting the de-watering, and a brief description of the water (i.e., oily sheen, clear, slightly turbid, oily smell, etc.)

6. If a spill should occur, the usable fuel oil within the diked area shall immediately be pumped into tanker trucks for transporting to another storage tank. The unusable fuel oil and the contaminated soil in the area will be excavated and disposed of in accordance with existing State and Federal regulations.
7. A written record shall be maintained by the Division manager of any spill which occurs, and the actions taken to properly dispose of all spilled material and the cleanup procedures.
8. All unloading of transport vehicles to fill the tank will meet the minimum requirements, rules, and regulations established by the Department of Transportation. The tanks will be attended while filling to prevent overflow, and to note visible leaks from seams, gaskets, valves, etc. The Operations Manager of the facility will make periodic inspections of the unloading area to detect signs of minor spills. If spills are evident the contaminated soil will be disposed of in accordance with existing State and Federal regulations.
9. All personnel who are in any way connected with unloading transport vehicles, use of fuel oil, maintenance of the facility, or responsible for storm water drainage and spill cleanup will be made familiar with this plan, and a copy of this plan will be posted and made readily available to all personnel at the facility.

Potential Sources of Spills:

A. Tank or Tank Valve Rupture:

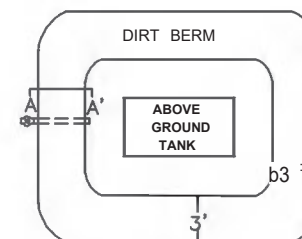
Prevention: Tanks, valves, and fittings will be properly maintained and kept in good condition. A visual inspection of all tanks, valves, and fittings will be conducted periodically for leaks, and tank foundations for cracks and unusual settling.

Tank Overflow:

Prevention: Truck drivers should follow correct operating procedures when unloading diesel fuel and stay with the equipment at all times during unloading operations. Key personnel will be present when fuel and/or other chemicals are delivered to assure that the delivery personnel follow proper procedures. Any spillage will be immediately cleaned up or mitigated in accordance with this plan.

C. Hose Rupture During Unloading and Spillage from Hoses after Disconnection:

Prevention: Periodic inspections will be conducted of all hoses and replacement hoses will be kept at the facility office. In addition, personnel will use the proper hose drainage procedure.



DETAIL A

10. Notification for Reportable Quantity of Oil Spill:

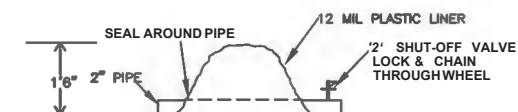
You must report the Oil Spill if 25 gallons or more of oil is spilled, or if any amount of oil is spilled into a stream, wetland, or other water of the state.

In the event of a reportable quantity oil spill, immediately call:

The National Response Center 1-800-424-8802

The Alabama Emergency Management Agency 1-800-843-0699

The Alabama Department of Environmental Management 1-334-271-7700



SECTION A-A'

Report the following information:

- A. Name, address, and telephone number of person reporting spill
- B. Exact location of facility and spill
- C. Company name, number, and location
- D. Material spilled
- E. Estimated quantity
- F. Source of spill
- G. Cause of spill
- H. Nearest down-stream body of water to receive spill
- I. Discuss/advice regarding actions taken for containment and cleanup

11. The facility will be kept gated and locked to prevent vandalism or theft whenever personnel are not present.

All key personnel will be fully trained in all aspects of this plan, the proper use of personal protective gear, and all reporting and record-keeping procedures. All non-key personnel will be made familiar with the plan and will be instructed on personal safety.

Spill Prevention, Control, and Countermeasure Plan

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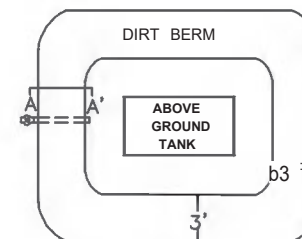
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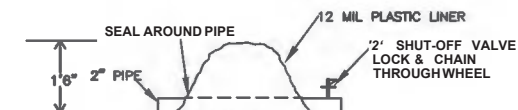
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Pollution Abatement and/or Prevention Plan

Prepared for:

Central Alabama Aggregates LLC
P.O. Box 640193
Pike Road, Alabama 36064

Submitted by:

LaBella Associates, D.P.C.
528 Mineral Trace
Hoover, Alabama 35244



CAA Shorter Pit PAP Plan

U.S. Highway 80 Shorter, Macon County, Alabama

DATE: MAY 2026

PROJECT NO. 2262691

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APPENDICES

Appendix A: Figures

- Figure 1: Facility Location Map
- Figure 2: Current Mining Layout
- Figure 3: Proposed Expansion Map

Appendix B: Work Flow Schematic Diagram

Appendix C: Best Management Practices Excerpts



CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and/or imprisonment for knowing violations.

Engineer: Phillip D. Davis
Registration Number: 19547
State: Alabama

Engineer Signature

May 18, 2026

Date



1.0 INTRODUCTION

1.1 Purpose

This Pollution Abatement and/or Prevention (PAP) Plan is required as part of a permit modification of the National Pollutant Discharge Elimination System (NPDES) Individual Mining Permit AL0084458 for Central Alabama Aggregates, LLC (CAA, LLC). This PAP Plan is being prepared in accordance with the rules and regulations of the Alabama Department of Environmental Management (ADEM). This plan has been developed to comply with the NPDES Permit (specifically Part II, Section A, Subsection 2) and ADEM Admin Code chapter 335-6-9. This Permit revision includes the expansion of the permitted area of operation onto an adjoining parcel.

1.2 Site Operator & Location

The operator of Shorter Pit is:

Central Alabama Aggregates, LLC
P.O. Box 640193
Pike Road, Alabama 36064

The current mining pits are located on property owned by Henry Thomas (mailing address 2855 Zelda Road, Montgomery, AL 36106) and the proposed mining pit expansion will lie within an adjoining property owned by William Segrest (mailing address 12532 County Road 9, Shorter, AL 36075). These parcels are located on the north side of U.S. Highway 80 West in Shorter, Alabama, approximately 1.5 miles east on US-80 from Interstate 85. A site location map is included as Figure 1.

1.3 General Site Operation Information

The Shorter Pit employs at least one person for general operations on site, and up to three persons are employed at various times, depending on the pit's demand. This pit mines dirt and/or chert and construction sand and gravel as raw materials loaded by CAA, LLC and hauled off-site. No asphalt or concrete operations are or will be operating at this site. The site operates Monday through Saturday, during daylight hours only. The expected life of this facility is for the life of the permit.

Surface water runoff from disturbed areas is diverted back into the settling ponds on site (as shown in Figure 2 and Figure 3), which allows any suspended solids in the stormwater to settle. Generally, stormwater is collected in the bottom of the excavated area of the mining pits and is eliminated through evaporation and natural percolation into the groundwater. A wash plant located on site uses water pumped from the ponds to wash mined aggregate in order to produce a more valuable product. Water from the wash plant operation is returned back into the pond from which it was pumped. No runoff is expected to discharge into surface waters from the site under typical use and normal operating conditions.

1.4 Geographic Setting

Topographic maps depicting the general layout and drainage of the mined areas, settling ponds, and reclamation areas are provided as Figures 2 and 3.



2.0 OPERATIONAL INFORMATION

2.1 Raw Materials, Processes, and Products

Dirt and/or chert and construction sand and gravel are the only raw materials being mined at the Shorter Pit. Materials are excavated with a front-end loader or excavator and then either hauled directly from the site or stockpiled on site and later hauled from the site. Flow Schematics for these mining operations are included in Appendix B and describe this workflow process. The main waste product that results from the mining operation is overburden, which is used to construct and maintain drainage berms or dams for the settling ponds or is stockpiled and later used to fill previously mined areas. Areas to be mined, as well as haul roads used for access to the pit areas, are depicted in Figures 2 and 3.

Mining at the site will be conducted generally as follows:

1. Areas will be excavated to remove overburden and topsoil. The topsoil shall be stockpiled for the reclamation phase. Excavation shall be done in a way that runoff is contained by a perimeter berm and directed into a settling pond.
2. Once overburden is removed, the deposit of raw material is excavated. Materials will be hauled directly from the site via trucks or stockpiled onsite and later hauled from the site.
3. As excavation of the deposits progress, haul roads will shift with the in-situ materials. As new haul roads are constructed, they will be ditched to divert surface runoff toward a berm or settling pond.
4. After the deposits are fully mined, reclamation will begin. Reclamation shall meet the standards and requirements of the Alabama Department of Labor and the NPDES permit.
5. Section 2.3.1 of this Plan describes the conditions that must be met during any dewatering operations where the incised pits may be pumped and discharged.

2.2 Waste Characteristics

Sands and clays within the matrix of the deposits are a waste byproduct of the mining process on site. These materials will settle within the settling ponds. These settling ponds will be cleaned out often throughout the mining process. Surface water discharges from this process have the following effluent limitations:

- ♦ pH should be within the range of 6.0 to 8.0 Standard Units (s.u.)
- ♦ Total Suspended Solids (TSS) is not to exceed a daily concentration of 30 mg/L or a monthly average of 20 mg/L
- ♦ Iron (Fe) is not to exceed a daily concentration of 1.0 mg/L or a monthly average of 0.5 mg/L
- ♦ Flow is to be calculated and is to be reported in millions of gallons per day (MGD)

The settling ponds are constructed in such a way that no discharge will occur.

2.3 Waste Treatment

The primary method of treatment for the removal of expected pollutants is the settling ponds. The settling ponds allow suspended sedimentation in the runoff to settle, ensuring turbid water does not leave the site. Under typical use and normal operating conditions, stormwater is expected to evaporate or percolate into the groundwater within these ponds. Removal of solids is performed when the sediment accumulation reaches 60% of the design capacity. All aspects of the proposed



sediment pond shall be in accordance with the requirements of the Best Management Practices (BMP) Plan. Typical BMPs are described in excerpts from the Alabama Handbook for Erosion Control provided in Appendix C. Each of the five settling ponds are further described in Section 3.2 of this plan.

The settling ponds, at a minimum, shall provide 0.25 acre-feet of storage for every acre of disturbed land draining into the respective pond. Any debris or vegetation that would impair compaction shall be removed from the pond prior to construction. The minimum width at the top of the dam will be at least 12 feet. The side slopes of the dam will be no steeper than 3:1. At least 80% coverage of annual and perennial grasses will be established and maintained on the embankments of the dam.

Each settling pond has an outfall which acts as an emergency spillway and is designed to adequately carry the expected peak flow from a 25-year, 24-hour storm event. All emergency overflows are designed to handle the entire drainage area for ponds in series.

2.3.1 Dewatering

Pumping to dewater the mining areas will not be a normal operation because the settling ponds in each mining area will be maintained to hold the runoff. Each mining area will be operated as an incised pit, with the exception of Mining Pit 003, which drains to the adjacent Settling Pond 003. No runoff is expected to discharge to surface waters from the settling ponds under typical use and normal operating conditions and stormwater is expected to naturally percolate and discharge into the groundwater. Monitoring of discharges to groundwater is not required by the Permit because of the natural treatment provided by the sand and gravel formation.

In the event that evaporation or natural percolation is not sufficient and a mining pit and/or settling pond fills with stormwater, it will become necessary for the operator to pump stormwater from the area. Pumping activities will only be performed to return water levels to a workable level with the excavation equipment being used. The following procedure should be followed for dewatering activities:

1. Once rainfall has stopped and there is no runoff entering the area, the operator should wait a minimum of 48 hours to allow solids to settle. The ponded water should then be visually inspected for turbidity before continuing.
2. The inlet pipe (suction end) of the pump should be submerged below the surface of the ponded water at all times and a minimum of 12" clearance should be maintained from the bottom or from any side walls. This is to prevent floating or settled contaminants from being discharged during the dewatering process.
3. Prior to any surface water discharge from this process, a sample must be collected and analyzed for turbidity. If the turbidity of the water is 50 Nephelometric Turbidity Units (NTUs) or greater, then the water cannot be allowed to discharge from the site.
4. If it appears that the pumping process is causing the ponded water to become stirred up and muddy, dewatering activities must be halted until solids have once again settled out.
5. Continue this process until ponded water has been reduced to a workable level.

2.4 Reclamation Procedure

As mining is completed in an area, the area shall be dressed to remove any piles or low areas, with terraces to minimize erosion, and should be fully stabilized with annual and perennial grass cover. A sump shall be maintained at the low end of all reclamation work until a satisfactory stand of grass is obtained.



3.0 SEDIMENTATION CONTROLS

3.1 Diversion of Surface Water Runoff

The locations of the settling ponds are determined based on the natural topography of the site to minimize the construction of diversionary structures. Drainage from all spoil, stockpile areas, excavation areas, loading areas, and any other areas of disturbance related to the mining site will be directed to one or more of these settling ponds prior to discharge. Any areas of disturbance for which drainage cannot be feasibly routed to a pond will be appropriately graded and vegetated and will have effective BMPs implemented for the control of non-point source discharge.

Berms are constructed to ensure all disturbed areas drain back to a mined pond or a settling pond. Soil piles are situated so that any silt carried by drainage will be treated in the settling ponds. The site has five settling ponds, each with a designated outfall. Vegetative buffers are maintained between the outfalls and any surrounding Waters of the State. Based on the topography of the site and surrounding area, surface water flow is expected to flow northward and westward from the site, into Unnamed Tributaries (UTs) of Calebee Creek. No surface water runoff is expected to be discharged from the settling ponds under typical use and normal operating conditions and stormwater is expected to evaporate or naturally percolate into the groundwater.

3.2 Settling Ponds

The settling ponds on site are constructed to meet the requirements of Appendix A of ADEM Admin Code Chapter 335-6-9. Settling pond locations are depicted in Figure 2 and Figure 3.

3.2.1 *Settling Pond 001*

The disturbed area within the drainage area of Pond 001 is approximately 1.7 acres. At 0.25 acre-feet per acre of disturbed area, Settling Pond 001 has a minimum design volume of 0.45 acre-feet.

3.2.2 *Settling Pond 002*

The disturbed area within the drainage area of Pond 002 is approximately 2.0 acres. At 0.25 acre-feet per acre of disturbed area, Settling Pond 002 has a minimum design volume of 0.5 acre-feet.

3.2.3 *Settling Pond 003*

The disturbed area within the drainage area of Pond 003 is approximately 2.75 acres. At 0.25 acre-feet per acre of disturbed area, Settling Pond 003 has a minimum design volume of 0.69 acre-feet.

3.2.4 *Settling Pond 004*

The disturbed area within the drainage area of Pond 004 is approximately 0.27 acres. At 0.25 acre-feet per acre of disturbed area, Settling Pond 004 has a minimum design volume of 0.07 acre-feet.

3.2.5 *Settling Pond 005*

The disturbed area within the drainage area of Pond 005 is approximately 60 acres. At 0.25 acre-feet per acre of disturbed area, Settling Pond 005 has a minimum design volume of 15 acre-feet.

3.3 Sediment Control for Haul Roads

The access and haul roads will have a sustained grade of no greater than 10%, with a maximum grade no greater than 15% for 300 feet. The outer slope will be no steeper than 2:1 and will maintain



80% coverage of annual and perennial grasses. Effective BMPs will be maintained at all times to prevent offsite vehicle tracking onto roadways and/or ditches at the entrances and/or exits of the permitted site boundary. The roads are to be crowned and properly ditched. Water bars, or wing ditches, are installed where appropriate. Typical designs for these structures are included in Appendix C. If stream crossings becomes necessary for operation, then certified design plans will be submitted to ADEM for their review.

All road runoff will be properly diverted towards the settling ponds. Pit roads will be properly ditched and stabilized so that runoff will be collected. Haul roads will be properly ditched and maintained at a reasonable grade and appropriate BMPs will be implemented and maintained.

3.4 Stream Impact Minimization

Figure 2 and Figure 3 depict nearby streams and other water bodies in the area. The mining operation will maintain a 50-ft minimum buffer zone between disturbed areas and any stream or other Waters of the State. If an appropriate buffer zone cannot be maintained, ADEM will be contacted regarding construction of a designed berm to protect the stream. The location of all streams in or adjacent to the mining area are marked on Figure 2 and Figure 3.

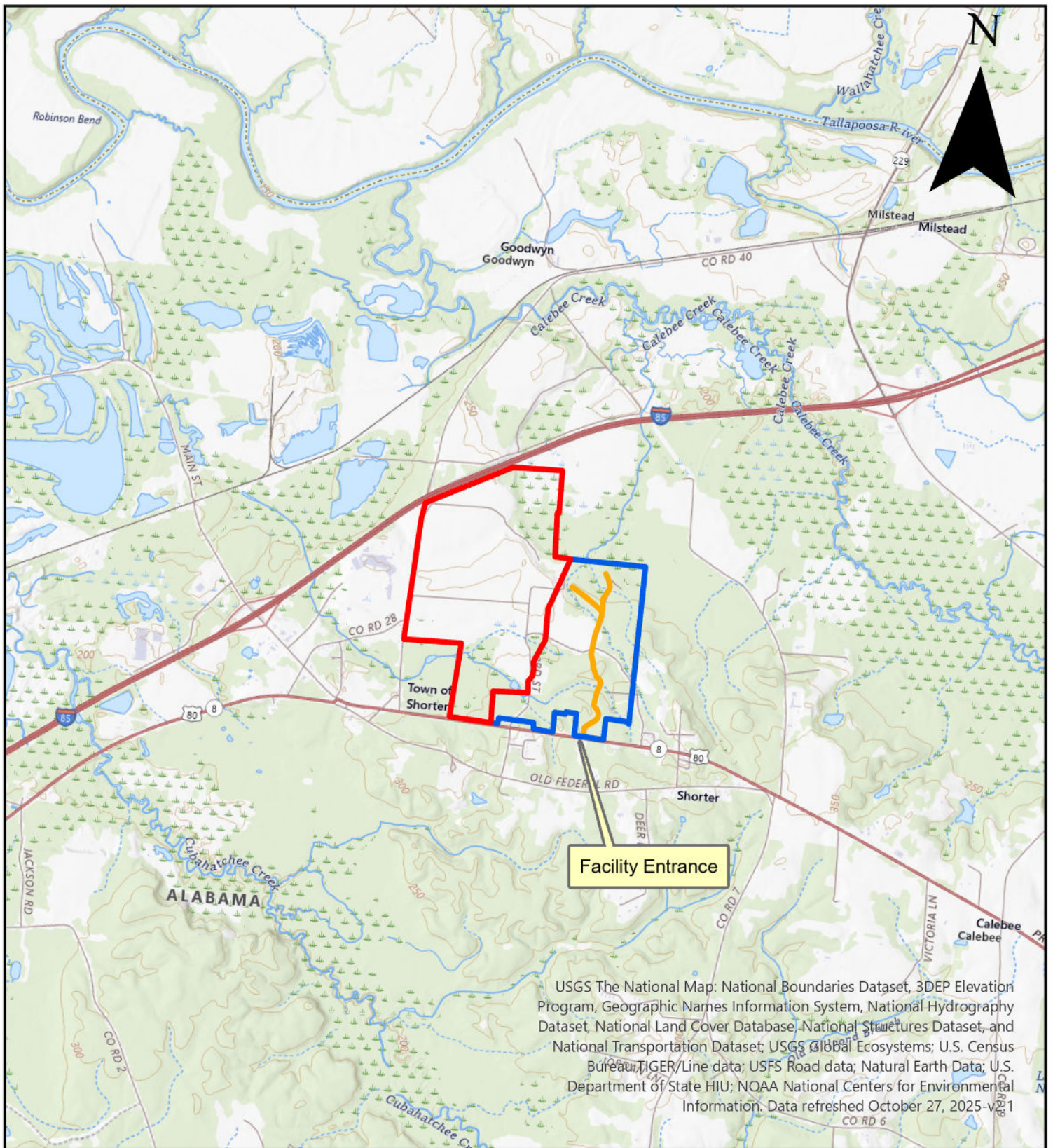
In addition to the buffer zone, a perimeter berm is established around the boundaries of the active mining areas that is grassed and maintained to control runoff. During reclamation of mining areas, the berms will be periodically adjusted to allow filling with materials.

3.5 Non-Point Source Pollution

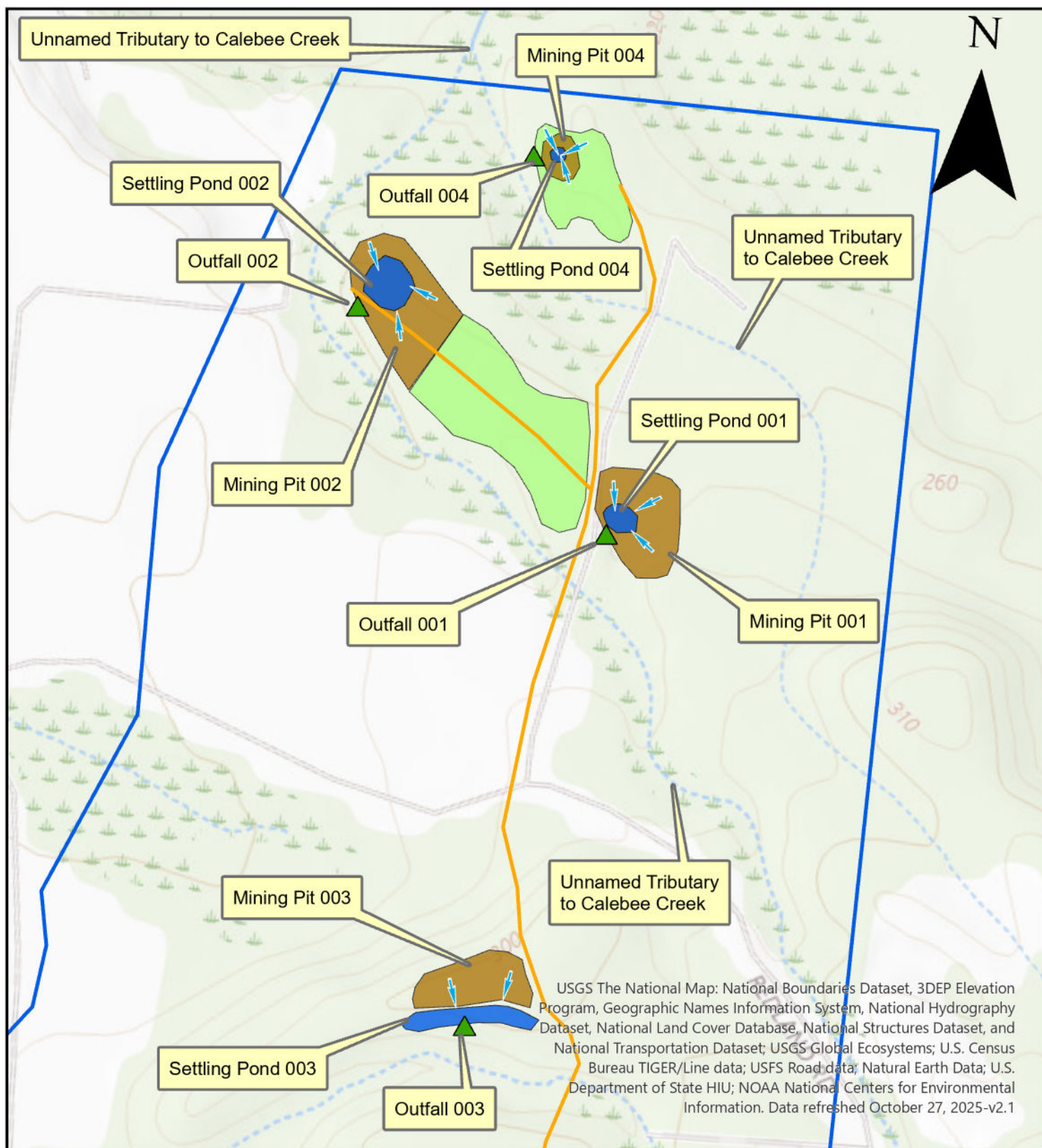
All disturbed areas will be graded such that drainage will carry runoff to the ditches, BMPs, and settling ponds. Non-point sources of pollution should not result from these operations.

3.6 Public Water Supply Watershed

This facility will not discharge into any stream segment classified as a Public Water Supply. Based on the topography of the area, the eventual receiving water from this site would be towards a UT of Calebee Creek. These tributaries are not public water supply and are not tributary to a public water supply watershed.



Legend Previously Permitted Area Proposed Permit Area Extension Existing Haul Road	 LaBella Powered by partnership. 528 MINERAL TRACE HOOVER, AL 35244 (205) 985-4874	TITLE: Facility Location Map Shorter Pit PAP Plan CAA, LLC U.S. Highway 80 Shorter, Alabama SCALE: 0 2,000 4,000 1 in = 4,000 ft	FIGURE NO. 1 PROJECT NO. 2262691 DRAWN BY KDC DATE DRAWN 05/18/2026



Legend

- Previously Permitted Area
- Existing Reclamation Area
- Current Mining Pit
- Current Settling Pond
- Existing Haul Road
- Expected Flow Direction
- ▲ Existing Outfall



528 MINERAL TRACE
HOOVER, AL 35244
(205) 985-4874

TITLE:
Current Mining Layout

Shorter Pit PAP Plan

CAA, LLC
U.S. Highway 80
Shorter, Alabama

SCALE: 0 250 500

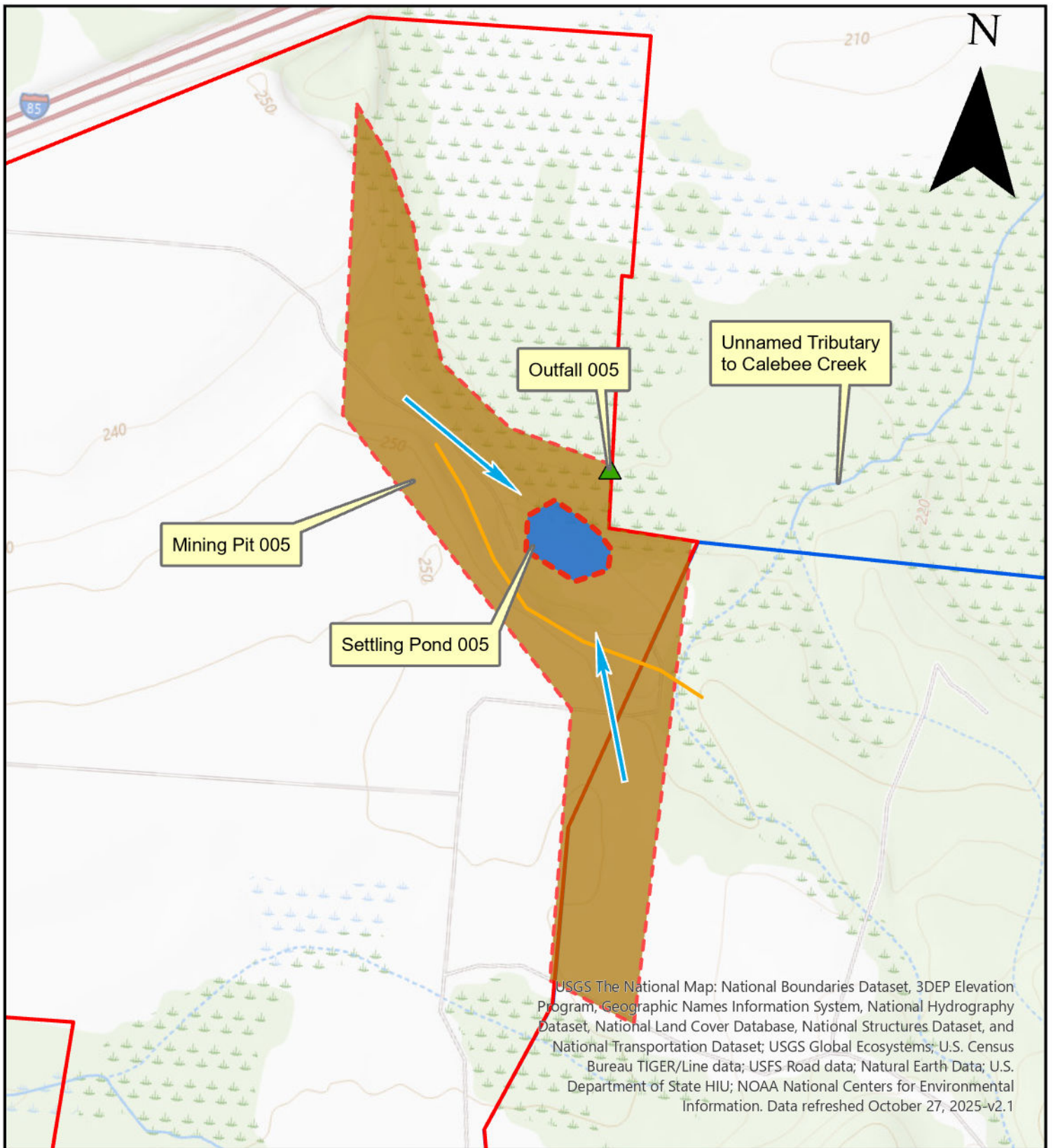
1 in = 800 ft

FIGURE NO.
2

PROJECT NO.
2262691

DRAWN BY
KDC

DATE DRAWN
05/18/2026



Legend

- Previously Permitted Area
- Proposed Permit Area Extension
- Proposed Mining Pit
- Proposed Settling Pond
- Proposed Haul Road
- ➔ Expected Flow Direction
- ▲ Proposed Outfall



528 MINERAL TRACE
HOOVER, AL 35244
(205) 985-4874

TITLE:
Proposed Expansion Map

Shorter Pit PAP Plan

CAA, LLC
U.S. Highway 80
Shorter, Alabama

SCALE: 0 350 700

1 in = 700 ft

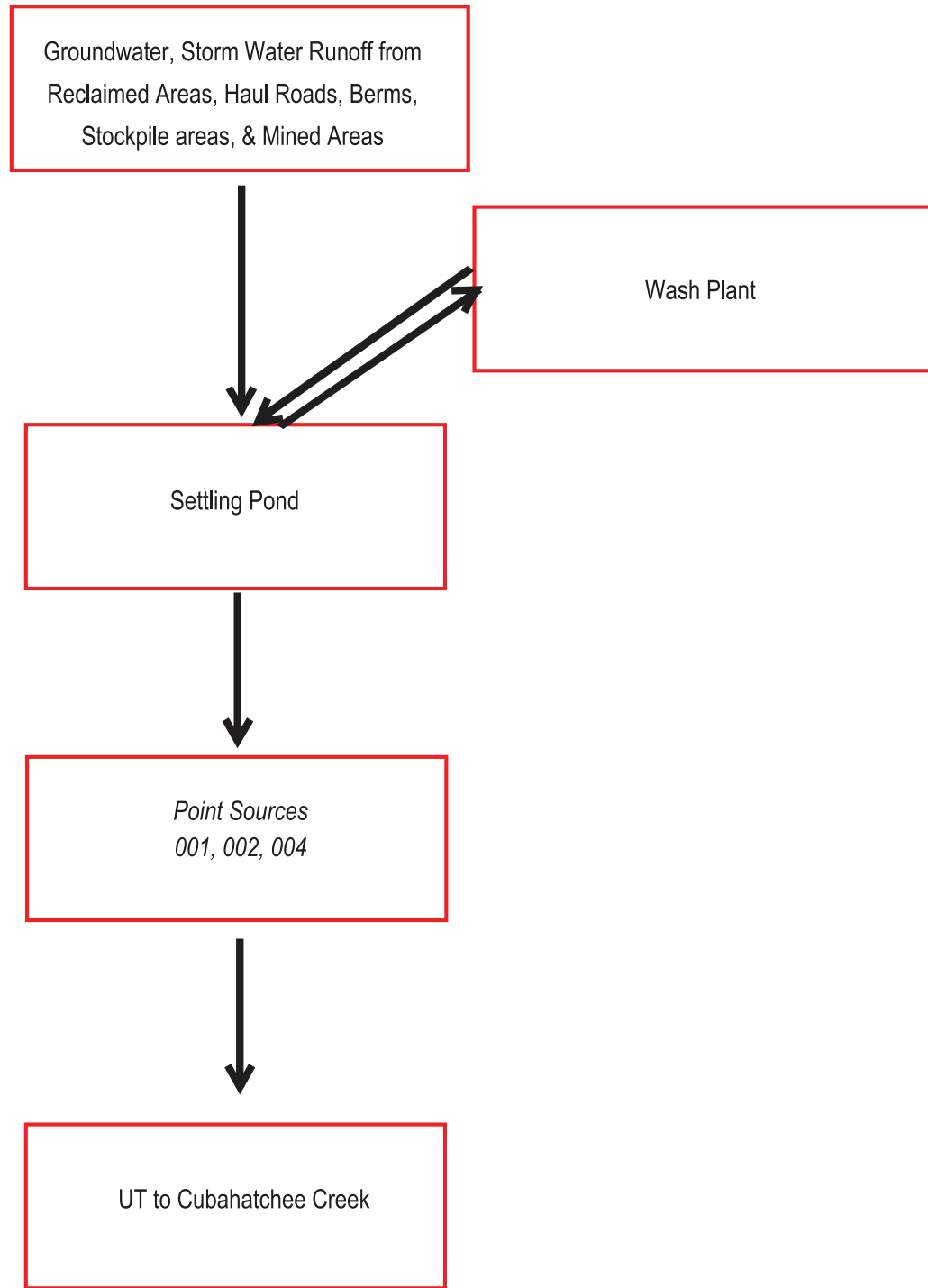
FIGURE NO.
3

PROJECT NO.
2262691

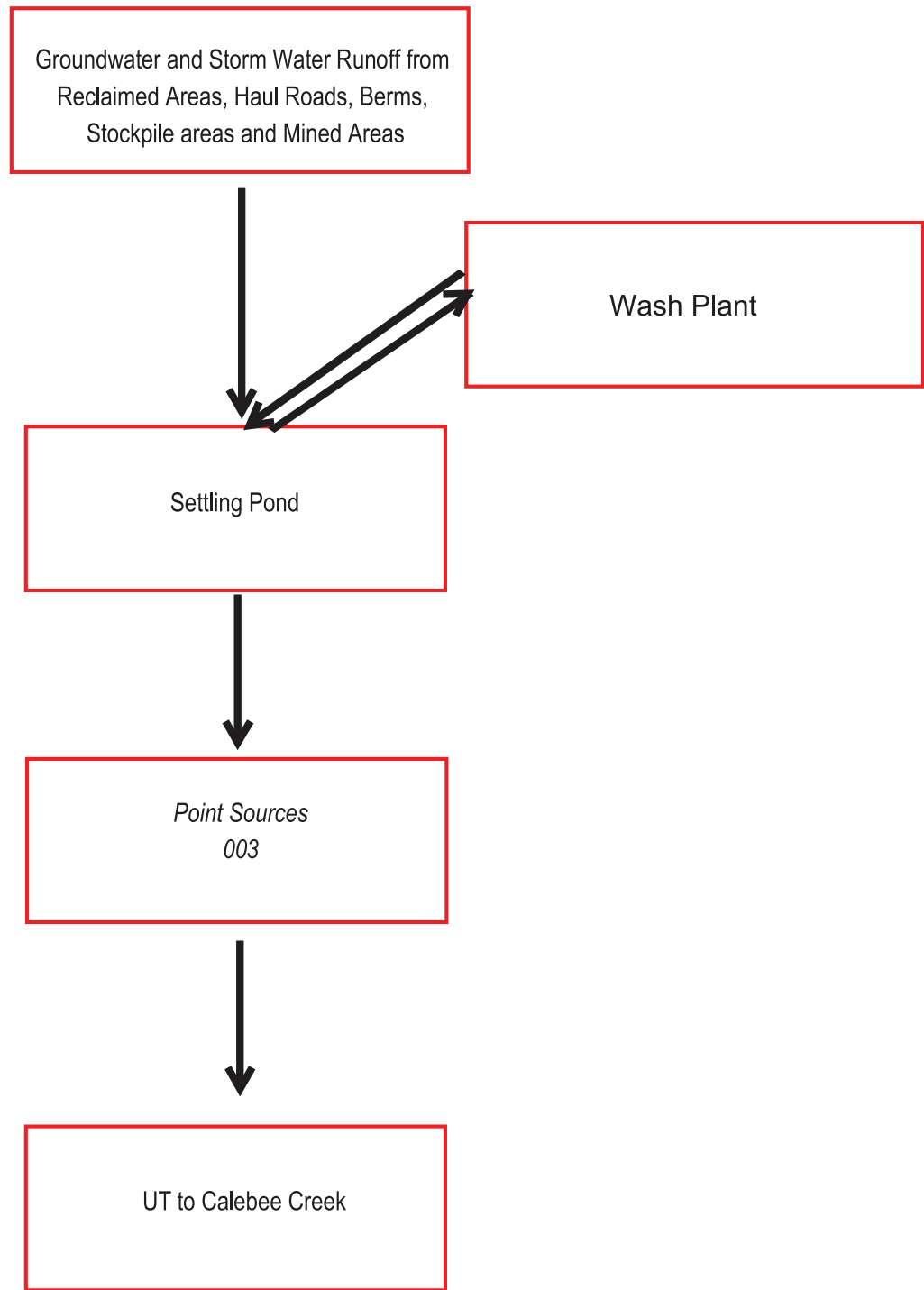
DRAWN BY
KDC

DATE DRAWN
05/18/2026

Central Alabama Aggregates, LLC.
SHORTER PIT
FLOW SCHEMATIC DIAGRAM
POINT SOURCES 001, 002, 004, 005



Central Alabama Aggregates, LLC.
SHORTER PIT
FLOW SCHEMATIC DIAGRAM
POINT SOURCES 003



Check Dam (CD)



Practice Description

A check dam (also referred to as a “ditch check”) is a barrier constructed across a conveyance to impound water for the purpose of velocity reduction by flattening the flow gradient and reducing shear stress within the channel. This practice applies in small open channels and drainageways, including temporary and permanent swales.

Check dams are not to be used in a live stream. Situations of use include areas in need of protection during establishment of grass and areas that cannot receive a temporary or permanent non-erodible lining for an extended period.

Planning Considerations

Check dams are used in concentrated flow areas to provide temporary channel stabilization with minimal sediment retention during rainfall runoff periods on construction sites. Channel erosion is reduced because check dams flatten the gradient of the flow channel and slow the velocity of channel flow. Check dams do not reduce turbidity of runoff. Check dams can be constructed of rock, wattles (sometimes referred to as tubes or rolls), sandbags, or other materials that may be acceptable to the design professional. Unless installed correctly, check dams will not capture a significant amount of sediment. When installed correctly, most check dams can capture the coarser grained material, which can be significant for sandy

soils. Sediment capture increases as velocity in the channel decreases by creating impoundments with the check dams. This impoundment pool creates the flattening of the gradient, greatly reducing channel erosion.

Water flowing over a check dam creates turbulent erosive forces (super critical flow) that must be addressed to prevent erosion downstream of the check dam. Inevitably, water will likely flow under check dams due to limitation with ground contact. Therefore, it is of utmost importance to ensure the performance of the check dam that erosion and scour under the check dam be minimized. This is best achieved using an underlay such as an 8-oz. nonwoven filter fabric. If the underlay is extended downstream, it will also protect the channel from super critical flows from water flowing over and under the dam.

Check dams should be planned to be compatible with the other features such as streets, walkways, trails, sediment basins and rights-of-way or property lines. Check dams are installed with the center overflow area lower in elevation than the ends to ensure flow goes over the check dam and not around. Check dams are normally constructed in series and the dams should be located at a normal interval from other grade controls such as culverts or sediment basins.

Check dams are generally used as a temporary BMP that is removed following construction to allow for final long-term stabilization of the channel. Provisions should be made to establish permanent channel linings as early as possible.

Check dams can also be used for other purposes such as the capture of sediment upstream of other practices or flocculent dosing upstream of a sediment basin.

Extensive research has been conducted by The Auburn University Stormwater Research Facility. The research recommendations are incorporated in the following planning considerations:

Rock Check Dams

Many check dams are constructed of rock. Rock may not be acceptable in some installations and alternative types of check dams need to be considered. Rock check dams (Figures CD-1 and CD-2) are usually installed with mechanical equipment, but hand labor is likely needed to complete most installations to the quality needed. The availability and cost of commercially produced rock should be considered. The use of rock should be considered carefully in areas to be mowed. Some rock may be washed downstream and should be removed before each mowing operation. The use of geotextile can be used on the upstream face of the rock check dam to increase the sediment trapping efficiency of the rock check dam. Measures must be taken to prevent undermining of the check dam and erosion below the check dam. A non-woven geotextile underlayment should be used to prevent this from happening. The geotextile meeting AASHTO M 288 requirement for separation Class II (minimum 8-oz. fabric) should extend approximately 3 ft. upstream and downstream, and pinned securely with the upstream edge buried.

Measures to prevent downstream erosion associated with a rock check dam include placing larger rock on the downstream face of a rock dam and providing erosion protection material just downstream of the dam.

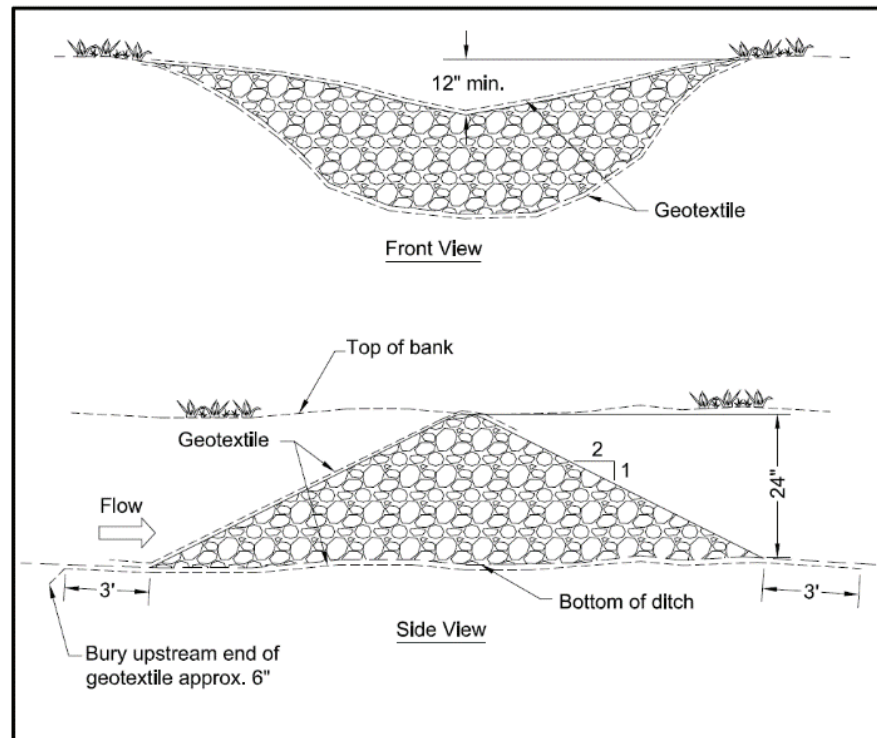


Figure CD-1 Profile and Cross-Section of Typical Rock Check Dams

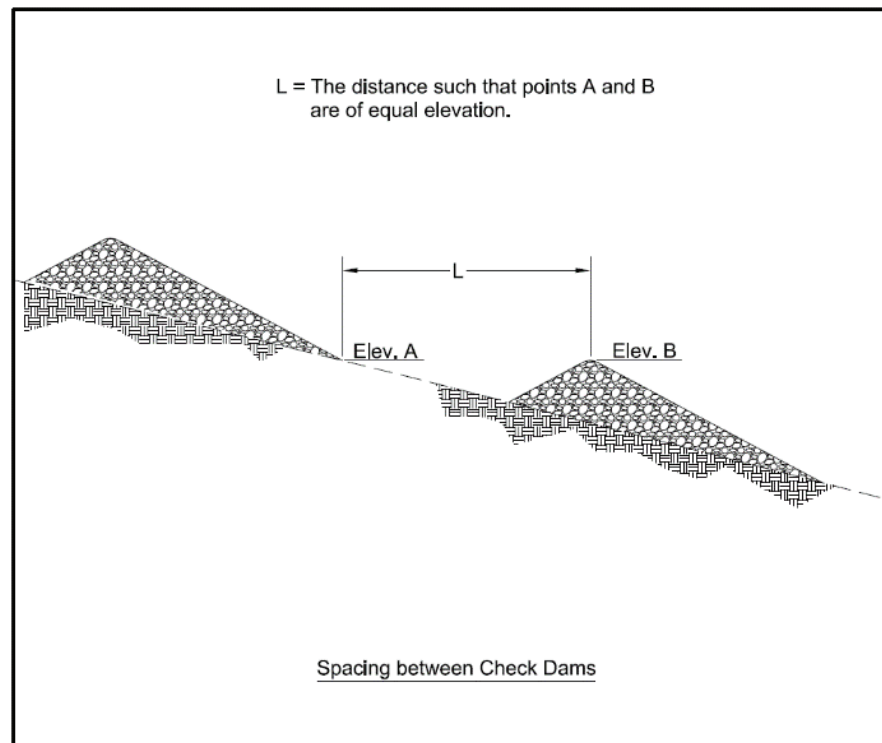


Figure CD-2 Profile of Typical Rock Check Dams

Wattle Check Dams

Wattles have been found to be best installed without trenching and on top of stapled geotextile underlayment that extends a minimum 3 ft. up and downstream from the wattle. Wattles must be properly stapled with sod staples on approximately 6-inch centers on each side of the wattle to prevent flotation and staked over the top using non-destructive tee-pee type staking. Wattles that provide less “flow through” create more ponding of water that increases the trapping of sediment (see Figures CD-3 and CD-4).

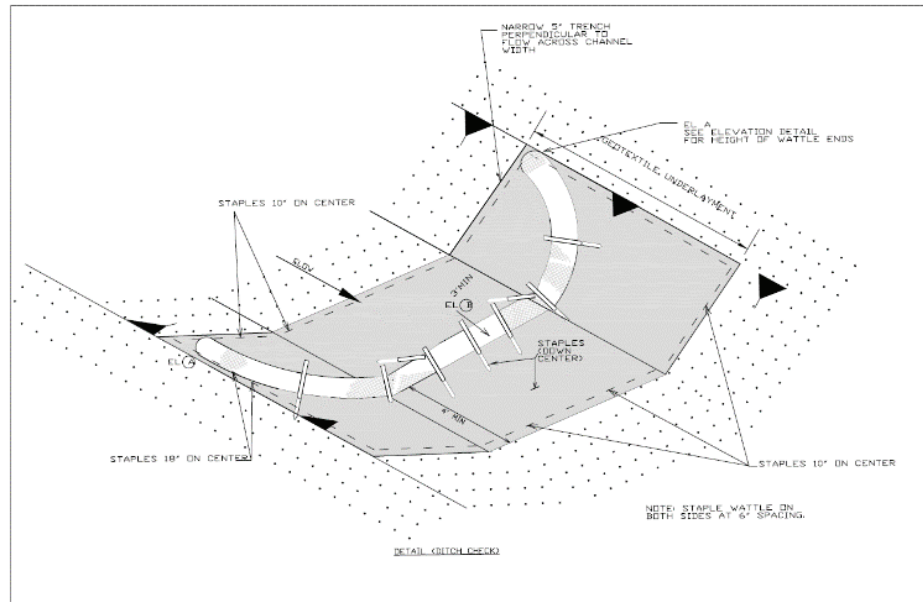


Figure CD-3 Wattle Check Dam (ditch check)



Figure CD-4 Wattle Check Dam (ditch check)
(Photo courtesy of Auburn University Stormwater Research Facility)

Silt Fence Check Dam

When properly designed and installed, typical silt fence materials can be utilized to construct a check dam. Geotextile underlayment should be used, and the fence notched as needed to ensure the maximum depth of flow is no greater than the depth of the channel. Figures CD-5 and CD-6 show the recommended details.

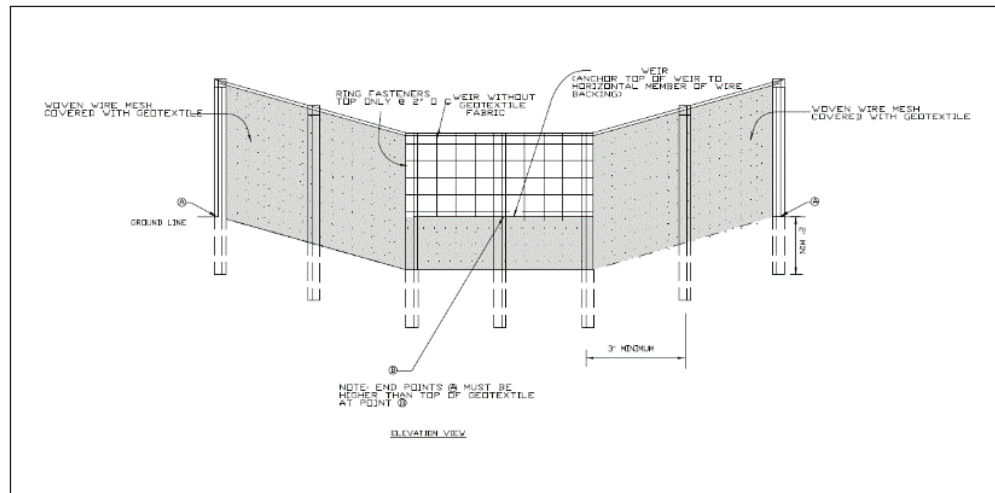


Figure CD-5 Silt Fence Check Dam Cross-Section

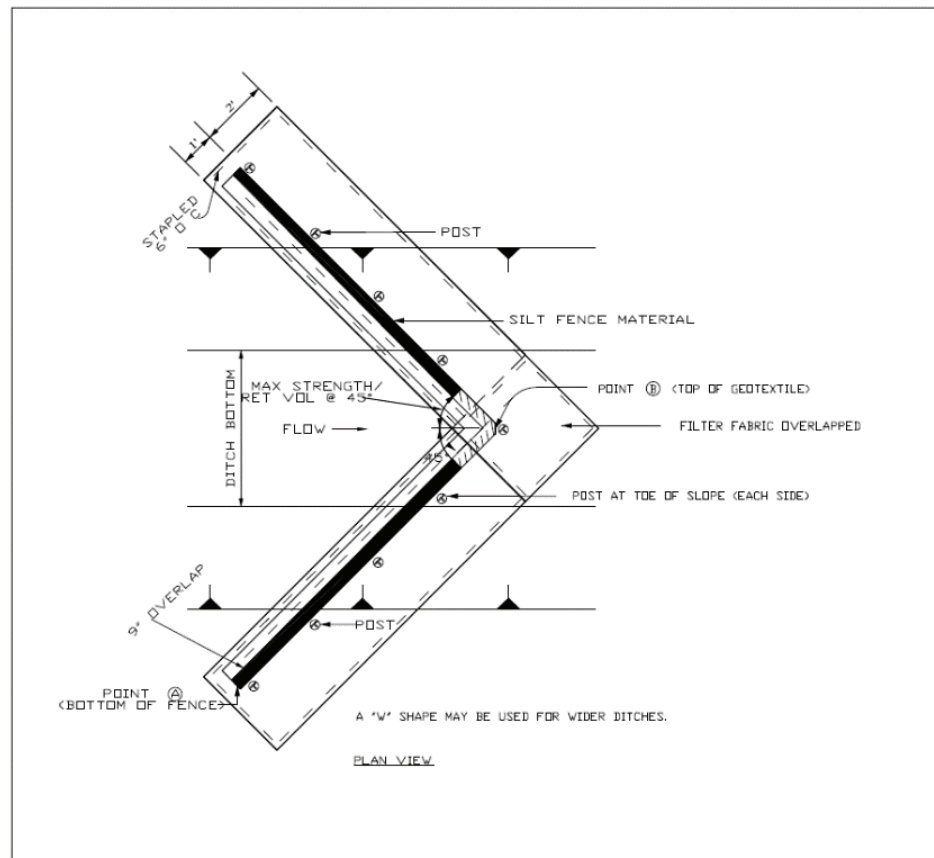


Figure CD-6 Silt Fence Check Dam Plan View



Figure CD-7 Silt Fence Check Dam
(Photo courtesy of Auburn University SWRC)

Sandbag Check Dam

Sandbags have also been proven to be effective as check dams but only when the bags are properly oriented (See Figures CD-8 and CD-9). A geotextile underlayment that extends approximately 3 ft. upstream and downstream should also be used in earth channel situations to prevent undermining and scour.

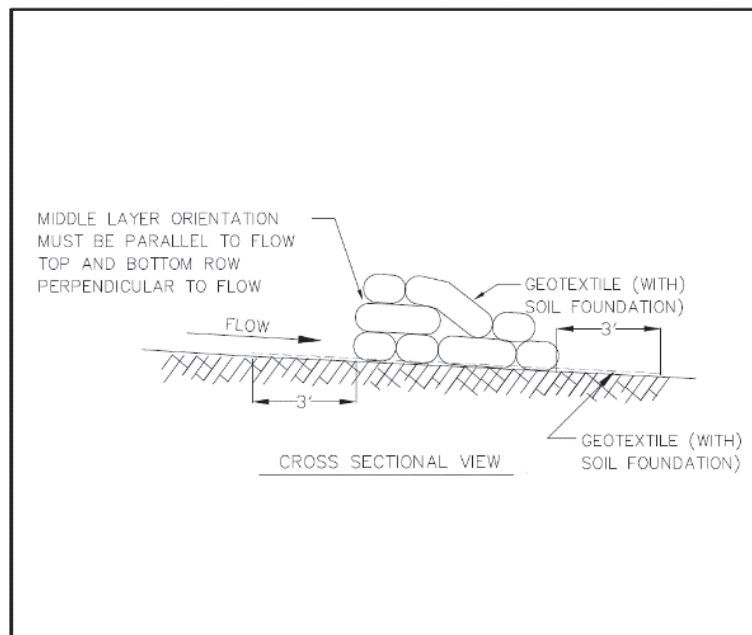


Figure CD-8 Sandbag Check Dam Cross-Section

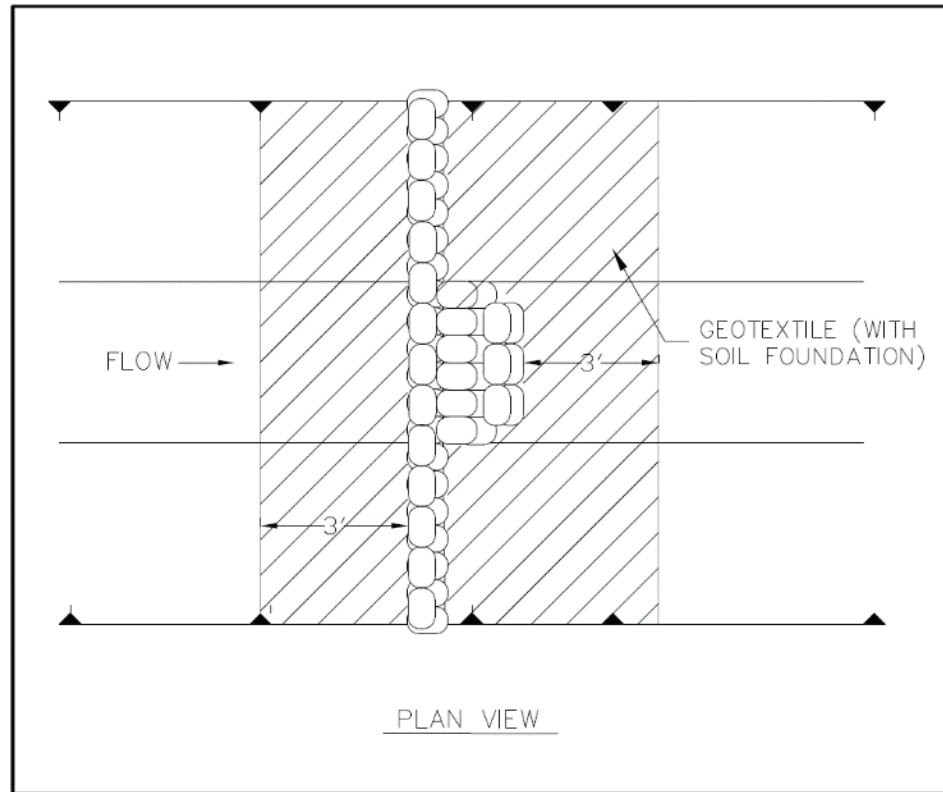


Figure CD-9 Sandbag Check Dam Plan View

Design Criteria

Formal design is not required. The following factors should be considered when designing check dams.

Drainage Area

Generally, one acre or less.

Maximum Height

Check dam height is a function of channel geometry. Most check dams are 3 feet or less in height.

Depth of Flow

Depth of flow over a check dam is a function of the cross-section and porosity of the check dam. Generally, flows over a check dam are less than 1 foot.

The center of the dam should be constructed lower than the ends. The elevation of the center of the dam should be lower than the ends by the depth of design flow.

Side Slopes

2:1 or flatter (rock check dam).

Spacing

The elevation of the toe of the upstream dam should be at or below the elevation of crest of the downstream dam (Figure CD-2).

For example, if the channel is 3% grade, and the check dam height is 2 feet, The check dam spacing should be 67 feet:

$$\text{Spacing (ft)} = \text{dam height (ft)} / \text{channel grade}$$

$$\text{Spacing} = 2 \text{ ft} / 0.03 = 67 \text{ feet}$$

Geotextile

Generally, the non-woven geotextile should meet the requirements found in AASHTO M 288 Class II used for separation.

Construction Exit Pad (CEP)



Practice Description

A construction exit pad is a stone base pad or manufactured product designed to provide a buffer area where mud and caked soil can be removed from the tires of construction vehicles to avoid transporting it onto public roads. This practice applies anywhere traffic will be leaving a construction site and move directly onto a public road or street.

Planning Considerations

Roads and streets adjacent to construction sites should be kept clean for the general safety and welfare of the public. A construction exit pad (Figure CEP-1) should be provided where mud can be removed from construction vehicle tires before they enter a public road.

Where possible the construction exit pad should be located and constructed at a site where surface runoff from the pad will not transport sediment from the pad off the site. If the pad slope toward the road exceeds 2%, a diversion ridge 6" to 8" high with 3:1 side slopes should be constructed across the foundation approximately 15 feet from the entrance. This diversion ridge should divert surface runoff from the pad away from the road and into a sediment trap or basin.

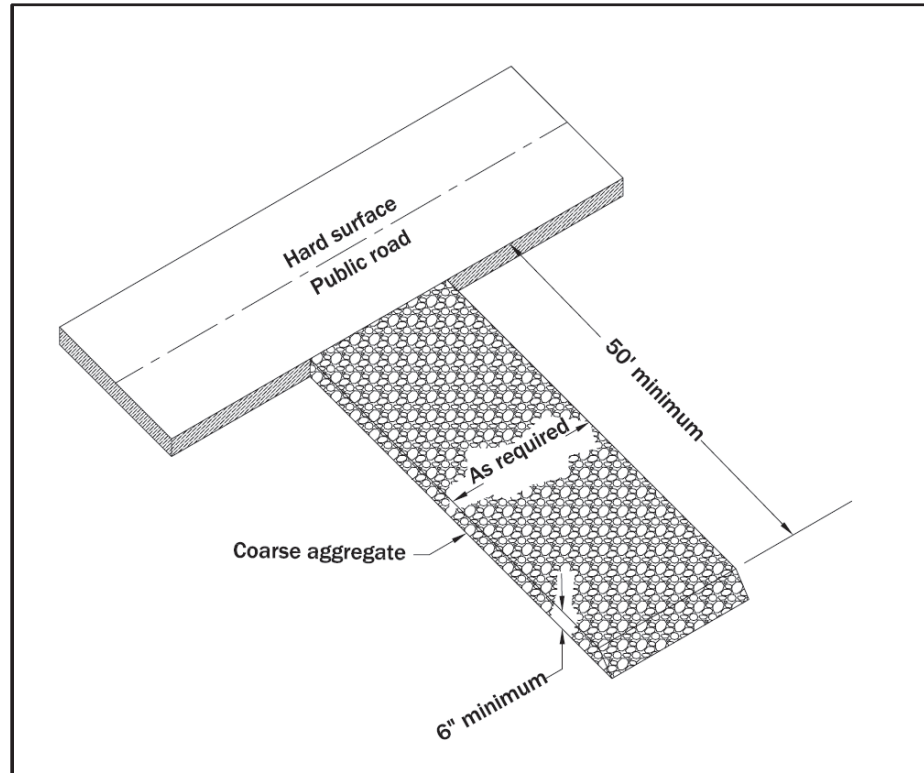


Figure CEP-1 Gravel Construction Exit

If the action of the vehicle traveling over the gravel pad does not sufficiently remove the mud or if the site is in a particularly sensitive area, a washing facility should be included with the pad (Figure CEP-2). When a washing facility is required all wash water shall be diverted to a sediment trap or basin.

If the construction exit pad is located in an area with soils that will not support traffic when wet, an under liner of geotextile will be required to provide stability to the pad.

Construction of stabilized roads throughout the development site should be considered to lessen the amount of mud transported by vehicular traffic. The construction exit pad should be located to provide for maximum use by construction vehicles.

Consideration should be given to limiting construction vehicles to only one ingress and egress point. Measures may be necessary to make existing traffic use the construction exit pad.

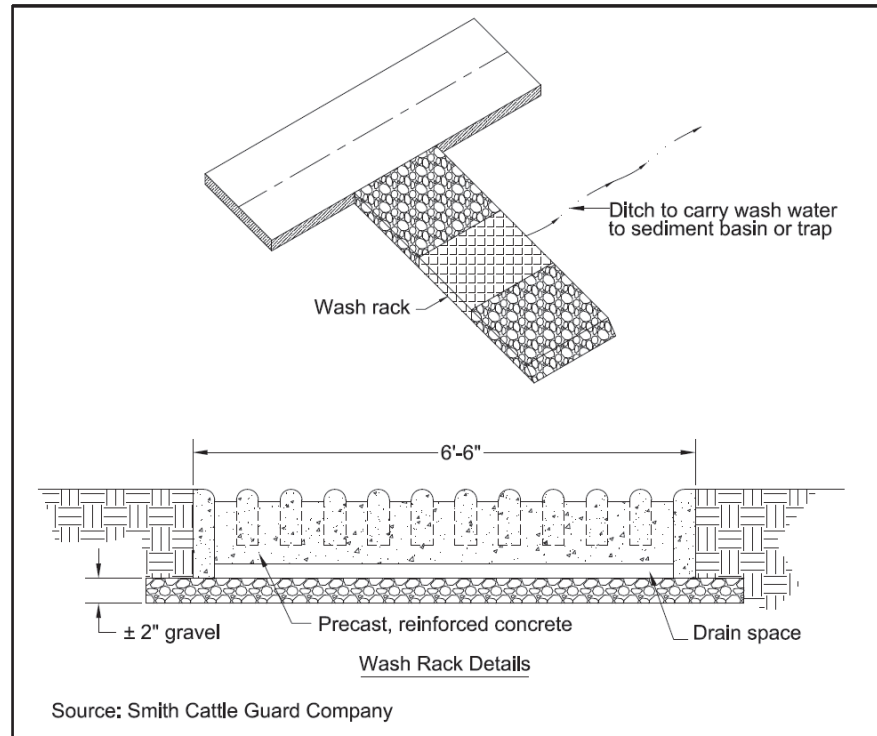


Figure CEP-2 Construction Exit with Wash Rack

Design Criteria

Aggregate size

Aggregate should be Alabama Department of Transportation coarse aggregate gradation No.1.

Pad Thickness

The exit pad shall have a minimum aggregate thickness of 6".

Geotextiles

A non-woven geotextile shall be placed underneath the aggregate. The geotextile shall be of the strength and durability required for the project to ensure the aggregate and soil base are stable. Generally, the non-woven geotextile should meet the requirements for a Class 2 geotextile used for separation that is found in the current version of AASHTO M288.

Pad Length

The exit pad should provide for entering and parking the longest anticipated construction vehicles. A pad is typically 50 feet long, but the required length may be longer or shorter.

Pad Width

The exit pad width is typically 20 feet but may be narrower or wider to equal the full width of the vehicular egress.

Washing

A washing facility shall be provided if necessary to prevent mud and caked soil from being transported to public streets and highways. It shall be constructed of concrete, stone, and/or other durable materials. Provisions shall be provided for the mud and other material to be carried away from the washing facility to a sediment trap or basin to allow for settlement of the sediment from the runoff before it is released from the site.

Diversion (DV)



Practice Description

A diversion is a watercourse constructed on a designed grade, across a slope, and consisting of an excavated channel, a compacted ridge, or a combination of both.

This practice applies to sites where stormwater runoff can be redirected to permanently protect structures or areas downslope from erosion, sediment, and excessive wetness or localized flooding. Diversions may be used to temporarily divert stormwater runoff to protect disturbed areas and slopes or to retain sediment on-site during construction.

Planning Considerations

Diversions are designed to intercept and carry excess water to a stable outlet.

Diversions can be useful tools for managing surface water flows and preventing soil erosion. On moderately sloping areas, they may be placed at intervals to trap and divert sheet flow before it has a chance to concentrate and cause rill and gully erosion.

Most diversions are constructed by excavating a channel and using the excavated material to construct a ridge on the downslope side of the channel. Right-of-way diversions and temporary diversions are sometimes constructed by making a ridge, often called a berm, from fill material.

Perimeter protection is sometimes used to describe both permanent and temporary diversions used at either the upslope or downslope side of a construction area.

Right-of-way diversions, sometimes referred to as water bars, are used to shorten the flow length on a sloping right-of-way and reduce the erosion potential of the stormwater runoff.

Diversions may be placed at the top of cut or fill slopes to keep runoff from upgradient drainage areas off the slope. The following picture illustrates the placement of a diversion near the top of the slope. Diversions are sometimes built at the base of steeper slopes to protect flatter developed areas which cannot withstand runoff water from outside areas. Also, they can be used to protect structures, parking lots, adjacent properties, and other special areas from flooding.



Figure DV-1 Diversion near the top of a slope

Diversions are preferable to other types of man-made stormwater conveyance systems because they more closely simulate natural flow patterns and characteristics. Flow velocities are generally kept to a minimum. When properly coordinated into the landscape design of a site, diversions can be visually pleasing as well as functional.

As with any earthen structure, it is very important to establish adequate vegetation as soon as possible after installation. It is usually important to stabilize the drainage area above the diversion so that sediment will not enter and accumulate in the diversion channel.

Design Criteria

Location

Diversion location should be determined by considering outlet conditions, topography, land use, soil type, length of slope, seepage (where seepage is a problem) and the development layout. Outlets must be stable after the diversion empties stormwater flow into it; therefore, care should be exercised in selecting the location of the diversion and its outlet.

Slope (Grade)

The bed slope of the diversion should be selected to meet velocity, capacity, and lining requirements for the site. Variable grades may be needed to obtain more uniform cross-sections and improve alignment. During the design process, the slope may need to be modified to meet stability and capacity requirements.

Capacity

The diversion channel must have a minimum capacity to carry the runoff expected from a storm frequency meeting the requirements of Table DV-1 with a freeboard of at least 0.3 foot (Figure DV-2).

The storm frequency should be used to determine the required channel capacity, Q (peak rate of runoff). The peak rate of runoff should be determined using the Natural Resources Conservation Service runoff curve number (RCN) method or other equivalent methods.

Table DV-1 Design Frequency

Diversion Type	Typical Area of Protection	24-Hour Design Storm Frequency
Temporary	Construction Areas	2-year
	Building Sites	5-year
Permanent	Agricultural Land	10-year
	Mined Reclamation Area	10-year
	Recreation Areas	10-year
	Isolated Buildings	25-year
	Urban areas, Residential, School, Industrial Areas, etc.	50-year

Diversions designed to protect homes, schools, industrial buildings, roads, parking lots, and comparable high-risk areas, and those designed to function in connection with other structures, should have sufficient capacity to carry peak runoff expected from a storm frequency consistent with the hazard involved.

Velocities

Diversions should be planned and designed for the conditions of the construction site. If the diversion is grass or earth-lined, the acceptable velocity to be expected will be determined by the allowable soil effective stress and the properties of the vegetation.

Cross-Section Shape

The land slope where the diversion is to be constructed must be taken into consideration when choosing a channel cross-section. On steeper terrain, narrow and deep channels may be required to reduce earth-moving quantities. However, if the diversion is to be vegetated or unlined, there may be a limit to how steep and deep it can be and still meet allowable effective stress criteria for stability. Broad, shallow channels usually are more applicable on gentler terrain. The diversion channel may be parabolic, trapezoidal, or V-shaped as shown in Figure DV-2.

Ridge Design

The supporting ridge cross section should meet the configuration and requirements of Figure DV-2.

The side slopes should be no steeper than 2:1. Side slopes should be flatter, 5:1 to 10:1, when the diversion is to be permanent with mowing and other maintenance activities performed on or around it.

The width of the ridge at the design water elevation should be a minimum of 4 feet.

The minimum freeboard should be 0.3 foot.

The design should include a 10% settlement factor.

Soils Investigation

The soil textures encountered along the diversion are needed to determine the allowable soil effective stress for stability assessment of bare soil and vegetated channels.

Outlet

Diversions should have adequate outlets which will convey concentrated runoff without erosion. Acceptable outlets include practices such as Grassed Swale, Lined Swale, Drop Structure, Riprap-Lined Swale, Sediment Basin, and Stormwater Detention Basins.

Stabilization

Unless otherwise stabilized, the ridge and channel should be seeded within 13 days of installation in accordance with the applicable seeding practice, Permanent Seeding or Temporary Seeding.

Disturbed areas draining into the diversion should be seeded and mulched prior to or at the time the diversion is constructed in accordance with the Permanent Seeding or Temporary Seeding (whichever is applicable) practices.

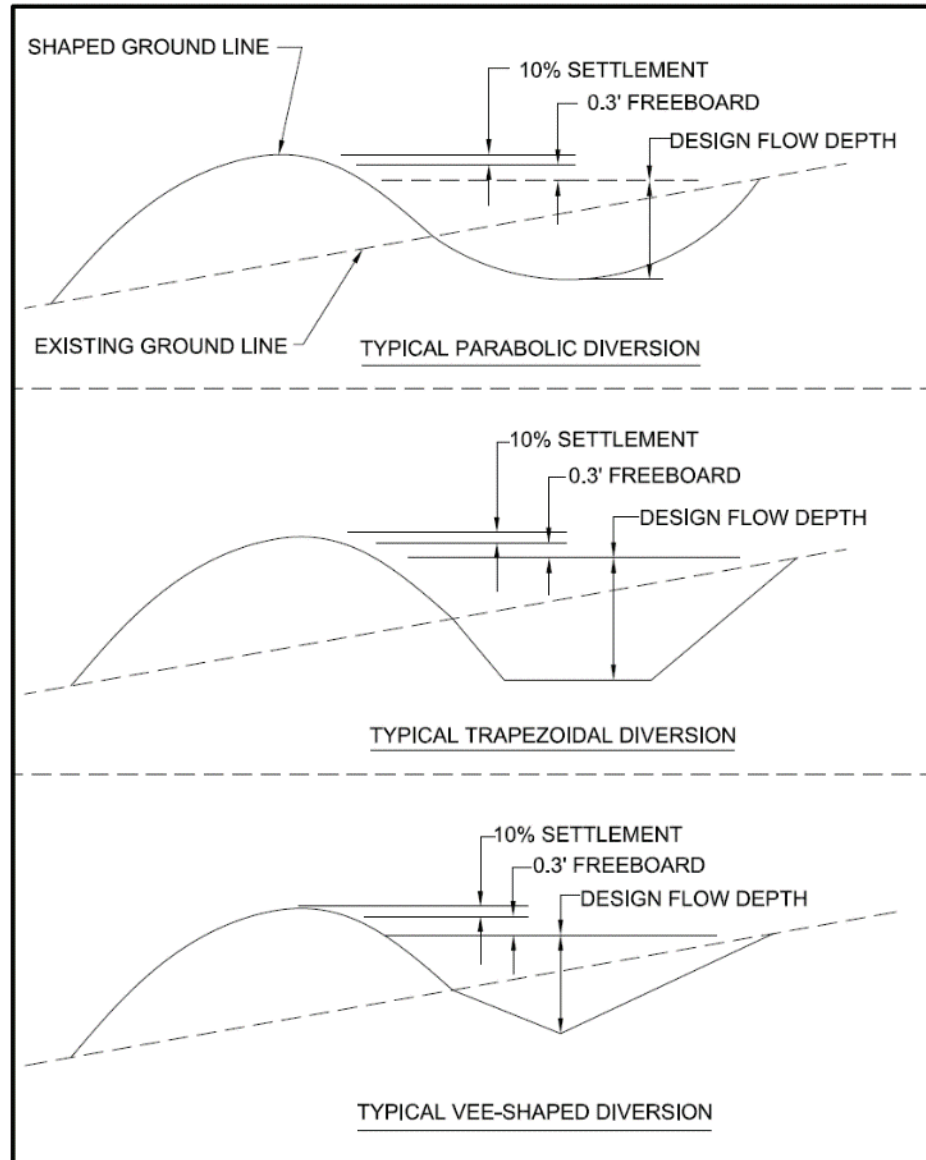


Figure DV-2 Typical Diversions Detail

Diversion Design

Steps in Designing a Diversion

1. Plan the location and type of diversion that minimizes negative impacts.
2. Select design points along the diversion where grades change or drainage areas and type of lining change significantly.
3. Determine the watershed area for the points in step 2 and for the outlet.
4. Find the peak runoff produced by the design storm at each design point identified in step 2.
5. Determine the slope of each reach of the diversion.
6. For the type of diversion to be constructed, select the appropriate channel cross section and the type of channel lining to be used, for example, bare soil, vegetation, rigid lining, or some combination.
7. Design the channel cross section for adequate capacity, typically based on the densest vegetation expected.
8. Check the design for stability by computing effective stress based on the sparsest vegetation expected. Repeating stability design computations may be necessary to complete the design if the stability check shows an inadequate design.
9. Add appurtenant structures, such as reinforced centers, as needed to allow for prolonged flows.

References and Tools for Diversion Design

General design guidance can be found in the USDA-NRCS Part 650, Engineering Field Handbook, Chapter 9, Diversion.

<https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=46275.wba>

Design tables can be found in the appendix of USDA-NRCS Part 650, Engineering Field Handbook, Chapter 7, Grassed Waterways.

<https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=46771.wba>

Software for the design of a diversion can be found in the USDA-NRCS Engineering Field Tools (EFT). This can be downloaded at:

<https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/ndcsmc/?cid=stelprd b1042198>

Rock Filter Dam (RD)



Practice Description

A rock filter dam is a stone embankment designed to help capture sediment in natural or constructed drainageways on construction sites. This practice can be used as a forebay to a sediment basin to help capture coarser particles of sediment.

Planning Considerations

Rock filter dams are used across drainageways to help remove coarser sediment particles and reduce off-site sediment delivery. Since rock filter dams are installed in flowing water, all local, state, and federal laws and regulations must be followed during the design and construction process. It is usually located so that it intercepts runoff primarily from disturbed areas, is accessible for periodic sediment removal and does not interfere with construction activities.

Dams should be designed so that impounded water behind the structures will not encroach on adjoining property owners or on other sediment and erosion control measures that outlet into the impoundment area.

Dams should be located so that the basin intercepts runoff primarily from disturbed areas, has adequate storage, and so that the basin can be accessed for sediment removal. Dams should also be located, as much as possible, in areas that do not interfere with construction activities.

Rock filter dams are not permanent structures. The design life of the structure is 3 years or less.

Design Criteria

Drainage Area

The drainage area above the dam should not exceed 10 acres.

Dam Height

The height of dam will be limited by the channel bank height or 8 feet, whichever is less. The dam height should also not exceed the elevation of the upstream property line. Water will bypass over the top of the dam and the back slope of the rock dam should be designed to be stable.

Spillway Capacity

The top of the dam should be designed to handle the peak runoff from a 10-year, 24-hour design storm with a maximum flow depth of 1 foot and freeboard of 1 foot. Therefore, the center portion of the dam should be at least 2 feet lower than the outer edges at the abutment. See Figure RD-1.

Dam Top Width

The minimum top width should be 6 feet. See Figure RD-2.

Dam Side Slopes

Side slopes should be 3:1 or flatter on the back slope and 2.5:1 or flatter on the front slope.

Outlet Protection

The downstream toe of the dam should be protected from erosion by placing larger stone on the back slope and a riprap apron at the toe. The apron should be placed on a zero grade with a riprap thickness of 1.5 feet. The apron should have a length equal to the height of the dam as a minimum and longer if needed to protect the toe of the dam.

Location

The dam should be located as close to the source of sediment as possible so that it will not cause water to back up onto adjoining property.

Basin Requirements

The basin behind the dam should provide a surface area that maximizes the sediment trapping efficiency. The basin should have a sediment storage capacity of 67 cubic yards per acre of drainage area.

Riprap Requirements

Stone for riprap should consist of field stone or rough unhewn quarry stone of approximately rectangular shape. The stone should be hard and angular and of such quality that it will not disintegrate on exposure to water or weathering and it should be suitable in all other respects for the purpose intended. The specific gravity of the individual stones should be at least 2.5.

The minimum median stone size should be 9". The gradation of rock to be used should be specified using Tables RD-1 and RD-2. Table RD-1 is used to determine the weight of the median stone size (d50). Using this median weight, a gradation can be selected from Table RD-2, which shows the commercially available riprap gradations as classified by the Alabama Department of Transportation.

The dam should be faced with 1 foot of smaller stone ($\frac{1}{2}$ " to $\frac{3}{4}$ " gravel) on the upstream side to increase efficiency for trapping coarser particles. Geotextile can also be added between the smaller stone and rock.

Table RD-1 Size of Riprap Stones

Weight (lbs)	Mean Spherical Diameter (ft)	Rectangular Shape	
		Length (ft)	Width, Height (ft)
50	0.8	1.4	0.5
100	1.1	1.75	0.6
150	1.3	2.0	0.67
300	1.6	2.6	0.9
500	1.9	3.0	1.0
1000	2.2	3.7	1.25
1500	2.6	4.7	1.5
2000	2.75	5.4	1.8
4000	3.6	6.0	2.0
6000	4.0	6.9	2.3
8000	4.5	7.6	2.5
20000	6.1	10.0	3.3

Geotextiles

Non-woven geotextiles should be used as a separator between the graded stone, the soil base, and the abutments. The geotextile shall be of the strength and durability required for the project to ensure the rock and soil base are stable. Generally, the non-woven geotextile should meet the requirements found in AASHTO M288 for Class 2 geotextile used for

separation. Geotextile should be placed immediately adjacent to the subgrade without any voids between the fabric and the subgrade.

Table RD-2 Graded Riprap

Class	Weight (lbs)					
	d ₁₀	d ₁₅	d ₂₅	d ₅₀	d ₇₅	d ₉₀
1	10	-	-	50	-	100
2	10	-	-	80	-	200
3	-	25	-	200	-	500
4	-	-	50	500	1000	-
5	-	-	200	1000	-	2000

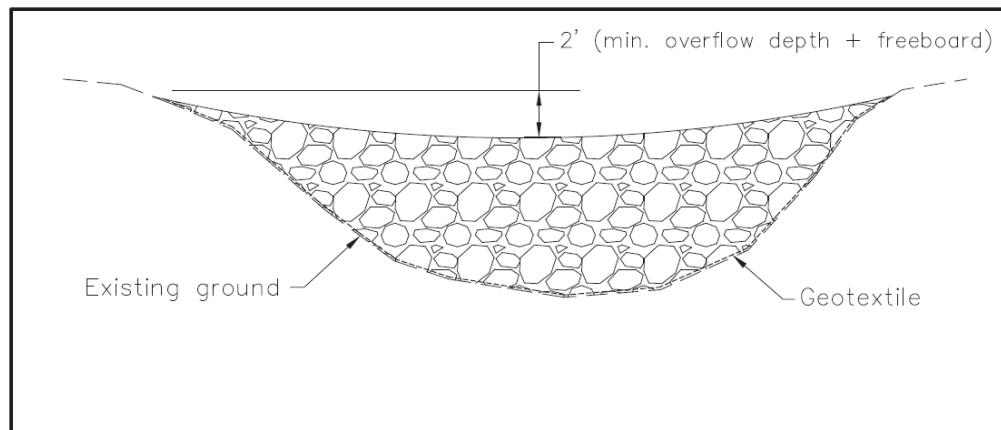


Figure RD-1 Typical Front View of Rock Filter Dam

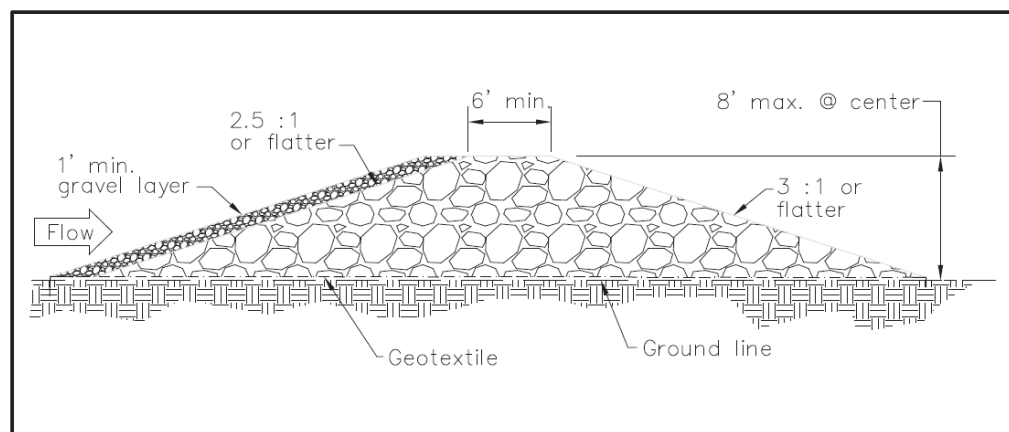


Figure RD-2 Typical Section of Rock Filter Dam

Sediment Barrier (SB)



Practice Description

A sediment barrier is a temporary sediment control practice installed downstream of a disturbed area intended to remove large-sized suspended sediment from sheet flow runoff by facilitating settling and to a lesser extent filtration. The most commonly used sediment barrier is a silt fence made up of a geotextile fabric that is anchored into the ground and attached to supporting posts and possibly reinforced with a wire fence or polypropylene netting. Other barrier materials could include sand bags, wattles, and various man-made materials and devices that can be used in a similar manner as a silt fence.

This practice applies downstream of small disturbed areas that yield runoff volumes less than the design storage volume. Barriers intercept runoff from upslope to form impoundments that temporarily detain runoff and allow sediment to settle out of the water and remain on the construction site.

Planning Considerations

Sediment barriers are used downslope of a disturbed area to intercept sediment-laden runoff. It is important that they be designed and installed to impound runoff from the design storm event and create favorable conditions for sediment to settle out of suspension. It is also important that the ends of sediment barriers are turned back upslope to prevent runoff from bypass around the ends of the barrier. Sediment barriers should be designed to safely overtop when the design storm is exceeded and provide for controlled dewatering of the detained runoff. Prevention

of scouring, erosion, and undermining at and under sediment barriers is also of upmost importance to ensure maximum impoundment capabilities.

The success of silt fences depends on a proper installation. Ideally, silt fences should be placed on the contour with each end turned up slope. When this installation is not feasible, “C” configurations (smiles), or “J” hooks should be used. Silt fences should be carefully installed to meet the intended purpose of intercepting and impounding sheet flow runoff. When properly installed, silt fences are effective at trapping coarse sediment but do not effectively reduce turbidity.

A silt fence is specifically designed to retain sediment transported by sheet flow from disturbed areas. Water flow through the silt fence often decreases over time as silts and debris “blind” or seal the geotextile fabric. Silt fences should be installed to be stable under the flows expected from the site. Generally, silt fences should not be installed across streams, ditches, waterways, or other concentrated flow areas. When properly designed and installed, silt fences can be used as a Check Dam (See Check Dam).

Silt fences are composed of geotextile (i.e., woven and non-woven) supported between steel or wooden posts. Silt fences are commercially available with geotextile attached to the post and can be rolled out and installed by driving the post into the ground. This type of silt fence is simple to install, but more expensive than some other installations. Silt fences must be trenched in at the bottom to prevent runoff from undermining the fence and developing rills under the fence. Locations with high runoff flows or velocities (steeper slopes and higher Runoff Curve Numbers) should use either a wire or polypropylene net reinforcement. In addition, decreasing the spacing between support posts will improve the structural integrity of the silt fence in these areas.

The “off-set” trench installation method (See Fig. SB-1) is now the preferred method of silt fence installation. This involves a conventional 6 in. x 6 in. trench or 6 in. slice installation to bury the geotextile, with the posts and wire installed 6 in. downslope of the trench or slice. The wire (when used) is on top of the ground surface and not in a trench. This installation has proven to have less potential for undermining than any installation tested at the Auburn University Stormwater Research Facility.

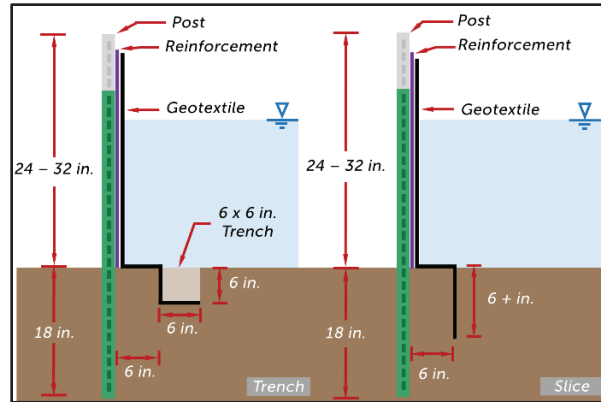


Figure SB-1 Off-Set Installation

Design Criteria (for silt fence)

Silt fence installations are normally limited to situations in which only sheet or overland flow is expected because the practice cannot pass the volumes of water generated by channelized flows. Silt fences are normally constructed of synthetic fabric (geotextile) and the life is expected to be the duration of most construction projects. Silt fence geotextile should conform to the property requirements found in AASHTO M288 shown in Table SB-1 as follows:

Table SB-1 Silt Fence Geotextile Fabric Requirements per AASHTO M288

Requirement	Test Methods	Units	Type A supported fence	Type B unsupported fence
Grab Strength Machine Direction X-Machine Direction	ASTM D4632/D4632M	N	400 400	550 450
Permittivity	ASTM D4491	sec ⁻¹	0.05	0.05
Apparent Opening Size	ASTM D4751	mm	0.60 max avg roll value	0.60 max avg roll value
Ultraviolet stability (retained strength)	ASTM D4355/4355M	%	70% after 500 h of exposure	70% after 500 h of exposure

Note: ALDOT has an approved products list for geotextile

As a general rule-of-thumb the drainage area behind the silt fence should not exceed $\frac{1}{4}$ acre per 100 linear feet of silt fence for non-reinforced fence and $\frac{1}{2}$ acre per 100 feet of reinforced silt fence. However, silt fence segments must be designed to impound runoff from the design storm event. Selection of the design storm should be based on site-specific characteristics including project location, duration of disturbance, and acceptable levels of risk to downstream receiving waters. Lacking site-specific guidance, a 2-yr, 24-hr design storm event is recommended.

Overflow Outlet and Dewatering

A silt fence segment must be designed for dewatering and overflow. Since geotextile materials blind or clog over time an effective means for dewatering must be included to prepare the silt fence for subsequent storms and minimize the chance of overtopping or periods of excessive ponding. The silt fence, at full storage capacity, should dewater in 4 to 12 hours. Overflow outlet(s) must be included for runoff that exceeds the design storm event and must convey the peak flow rate for the design storm event. One outlet option which has been well tested is a perforated board with a weir. This is installed in a break along the silt fence, which is sealed to the board. The break should be located at the lowest point of the silt fence segment. The board has several 1 in. diameter orifices, and a v-notch weir at the top, placed 18 in. from the bottom, to maintain volumetric storage (Fig. SB-2).



Figure SB-2 Example dewatering board & overflow weir.

Discharge from silt fence segments should be controlled to be non-erosive. Erosion control or scour protection, such as a geotextile splash apron and/or riprap, must be used immediately downstream of the dewatering and overflow outlet.

Type A Silt Fence

Type A fence shall be a minimum of 24 in. and not more than 32 in. above ground with wire reinforcements and is used on sites needing the highest degree of protection by a silt fence. The wire reinforcement is necessary because this type of silt fence is used for the highest runoff and flow situations. Wire fence should be made of 14-gauge wire with 6 in. x 6 in. openings (Note: ALDOT wire spacing may differ). Equivalent backing or reinforcement is allowed for wire reinforcement if it is sewn in or physically attached to the silt fence fabric. Type A silt fence should be used where runoff flows or velocities are particularly high or where slopes exceed a vertical height of 10 feet. Staked tie backs on each end of a Type A silt fence may be necessary to prevent overturning. Tie backs should also be used at points of possible concentration and overtopping if site conditions do not allow for the silt fence to be installed on the contour.

Provide an overflow outlet with a riprap splash pad with a geotextile underlay or other outlet protection device for any point where flow may overtop the silt fence.

The silt fence should be installed as shown in Figure SB-3. Maximum post spacing is 10 ft. In situations where runoff flows parallel with the silt fence when in perimeter control applications, 10 ft spacing is adequate. J-hooks should also be considered for long parallel flow scenarios to slow flow velocity and create areas of impoundments, thereby reducing scour potential under the silt fence. For the portion of the silt fence that creates the J-hook impoundment area, the maximum post spacing should be reduced to 5 ft. to support the hydrostatic loads. For all installations that intercept flow perpendicularly to the slope causing a concentrated impoundment, the maximum post spacing should be reduced to 5 ft. Materials for posts, post size, and fasteners are shown in Tables SB-2 and SB-3. Do not use “light weight” steel posts commonly found at building supply stores. Details for overlap of Type A silt fence is available from The Alabama Department of Transportation construction drawings and shown in Figure SB-4.

Geotextile silt fence material should be looped over each post and the top of the wire to prevent sagging. A “hog ring” attachment should be made each 1 ft along the top of the wire.

Table SB-2 Post Size for Silt Fence

Silt Fence	Minimum Length	Type of Post	Size of Post
Type A	4 ft	Steel “T” Post	1.25 lb./ft min.
Type B	4 ft	Soft Wood Oak Steel	3 in. diameter or 2X4 1.5 in. X 1.5 in. 1.33 lb./ft min.

Table SB-3 Wood Post Fasteners for Silt Fence

Fastener	Gauge	Crown	Legs	Staples/Post
Wire Staples	17 min.	¾" wide	½" long	5 min.
	Gauge	Length	Button Heads	Nail/Post
Nails	14 min.	1"	¾" long	4 min.

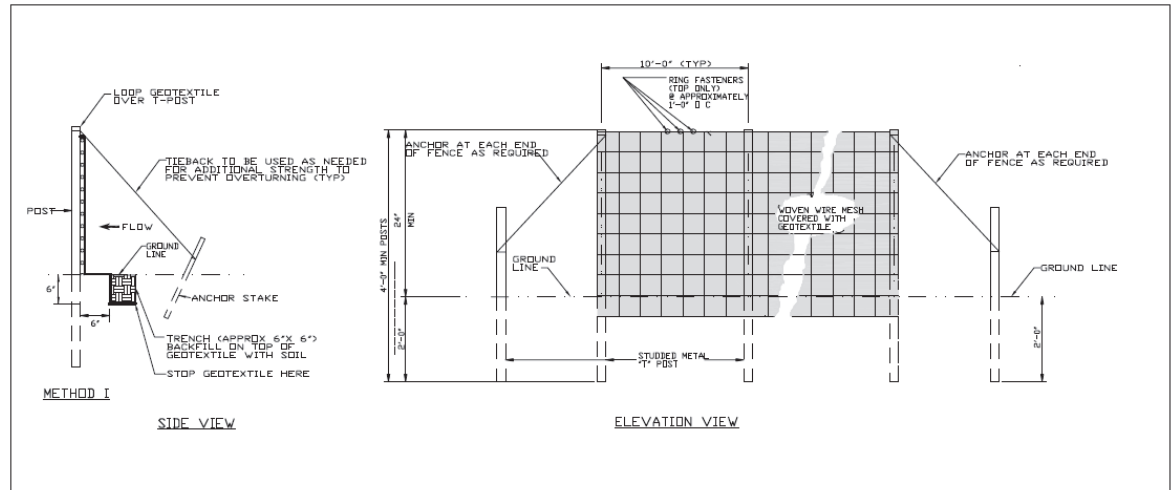


Figure SB-3 Silt Fence-Type A
(For post material requirements see Tables SB-2 and SB-3)

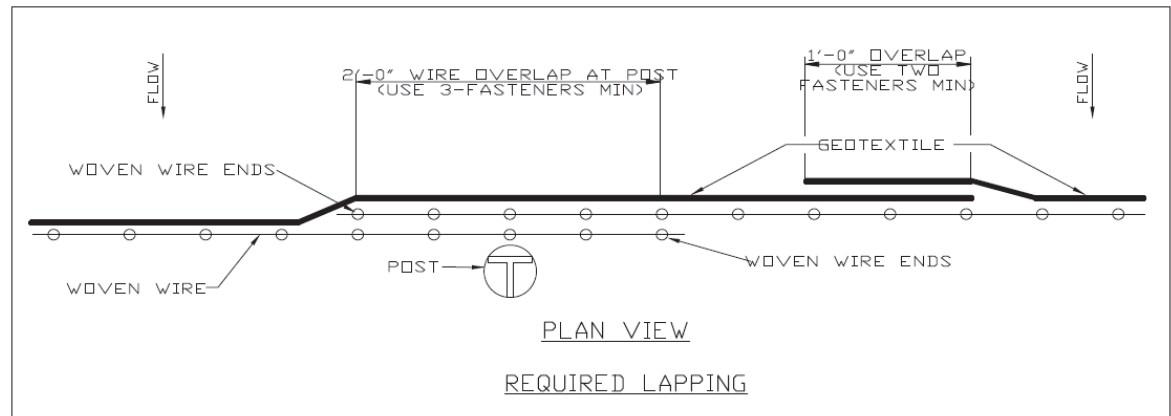


Figure SB-4 Type A Silt Fence Overlap

Type B Silt Fence

This 36 in. wide geotextile fabric should be used on developments where the life of the project is short (6 months or less) and there is less need for protection from a silt fence.

The silt fence should be installed as shown in Figure SB-5. Post spacing is either 4 ft or 6 ft based on geotextile elongation % (see note on Figure SB-5). Materials for posts and fasteners are shown in Tables SB-2 and SB-3. Details for overlap of the silt fence and fastener placement are shown in Figure SB-6. Provide overflow and dewatering devices if needed.

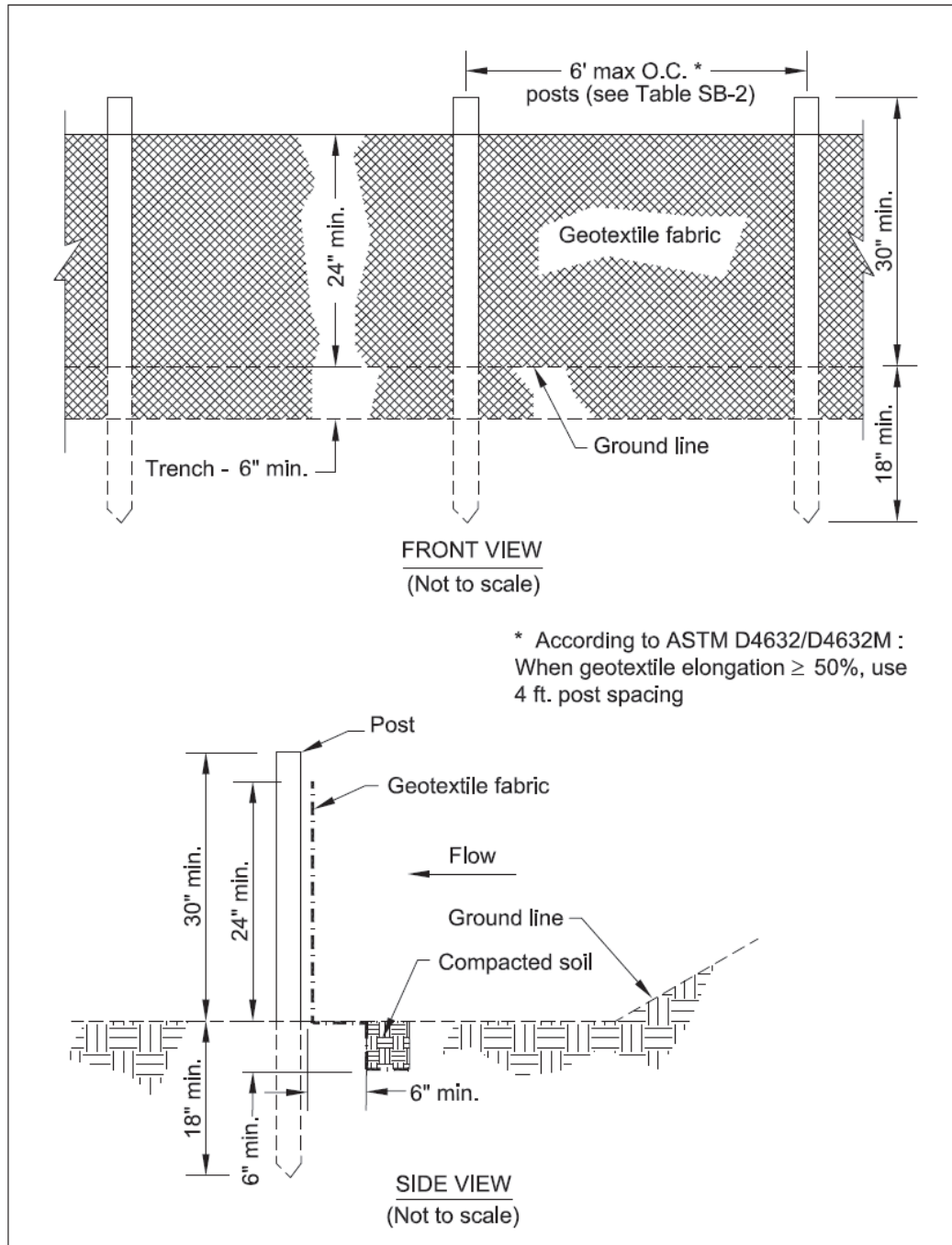


Figure SB-5 Silt Fence - Type B
(For post material requirements see Tables SB-2 and SB-3)

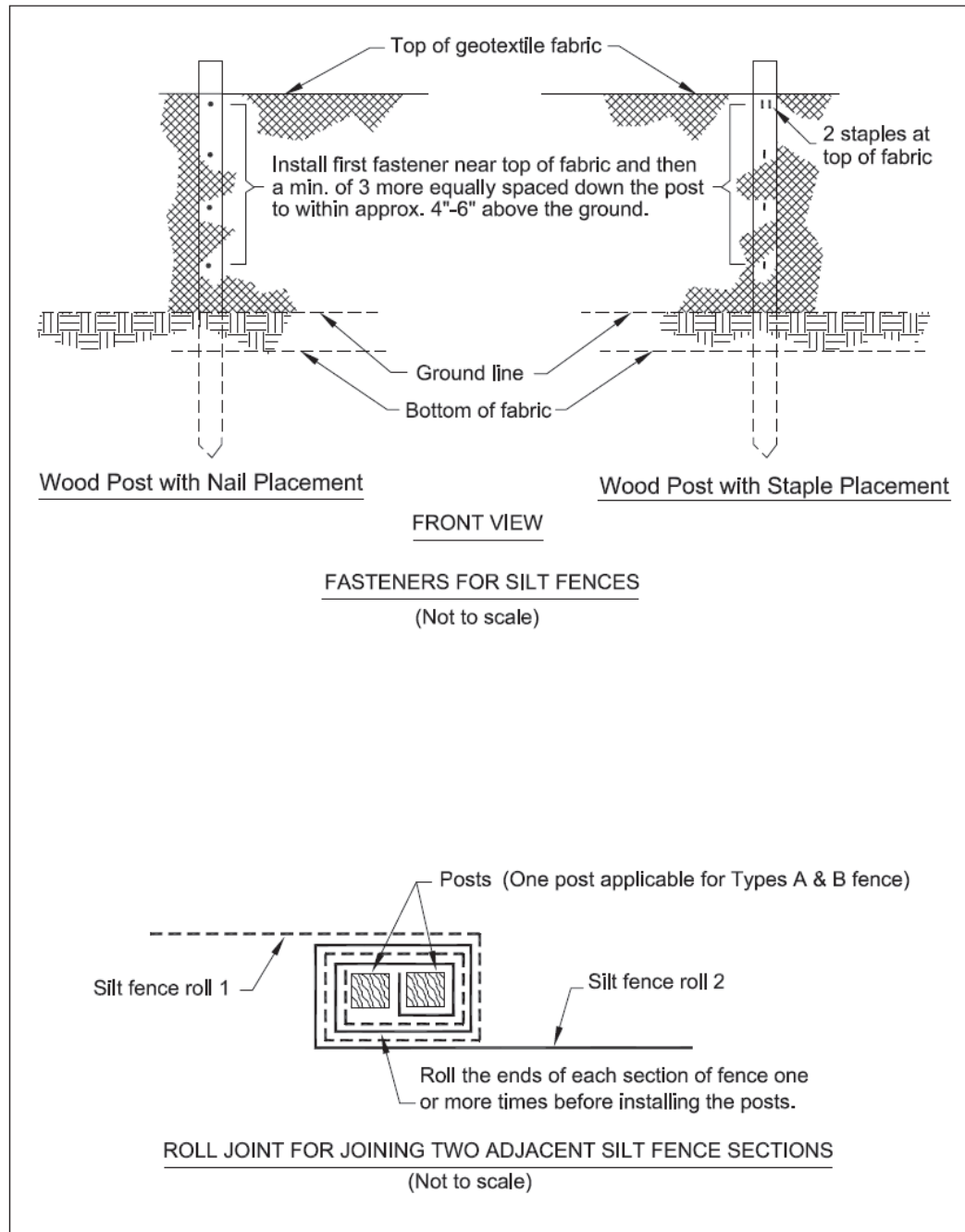


Figure SB-6 Silt Fence Installation Details for Type B