U.S. Army Corps of Engineers – Charleston District - Regulatory Division

REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD) / DELINEATION

(For Jurisdictional Status and Identifying Wetlands and Other Aquatic Resources)

The Regulatory Division is now offering paperless/electronic documents as a primary means of accepting project submittals and responding to requests. While electronic submittals are preferred, we will continue to accept paper documents that meet our file requirements in order to accommodate those with limited computer access. Depending on the project location, requests should be submitted to the appropriate office below. Please visit https://www.sac.usace.army.mil/Missions/Regulatory/Electronic-Submittals/ for additional information on electronic submittals.

Charleston Office:	**Columbia Office:**	**Conway Office:**	**Greenville Office:**
69A Hagood Avenue	2567 Essayons Way	1949 Industrial Park Road, Room 140	150 Executive Center Drive, Suite 205
Charleston, SC 29403	Fort Jackson, SC 29207	Conway, SC 29526	Greenville, SC 29615
843-329-8044	803-253-3444	843-365-4239	864-609-4326
SAC.RD.Charleston@usace.army.mil	**SAC.RD.Columbia@usace.army.mil**	**SAC.RD.Conway@usace.army.mil**	**SAC.RD.Greenville@usace.army.mil**

I. PROPERTY AND AGENT INFORMATION

A. Site Details/Location:

Site Name: Pacolet Quarry Site Date: March 14, 2023

City/Township/Parish: Spartanburg County: Spartanburg

Latitude/Longitude: 34.9370N, -81.7681W Acreage: 782

Tax Map Sequence (TMS) #(s): Multiple Spartanburg Co. TPNs (Appendix C)

Property Address(es): Southwest and northeast of Hammett Grove Road

An accurate depiction of the review area must be provided (survey, tax map, **OR** GPS coordinates). Tax maps may only be used if the site includes the entire tax map parcel. ***See the attached Checklist for information that should be submitted for a complete and proper submittal.***

B. Requestor of Jurisdictional Determination/Delineation *(if there are multiple property owners, please attach additional pages)*

Name: Ross Birkner Company Name (*if applicable*): River Bend Aggregates, LLC

Address: 1855 East Main Street, Suite 14, 142 Spartanburg, SC 29307

Phone: 779-230-0349 Email: rbirkner@turnkeyprocessing.com

Check one: ☐ I currently own this property ☐ I plan to purchase this property ☑ Other: Due diligence

C. Agent/Environmental Consultant Acting on Behalf of the Requestor *(if applicable)*:

Consultant/Agent Name: Chris Daves, P.W.S.

Company Name: S&ME, Inc.

Address: 134 Suber Road Columbia, SC 29210 Phone: 803-561-9024

Email: cdaves@smeinc.com

II. REASON FOR REQUEST (check all that apply):

☐ I intend to construct/develop a project or perform activities on this site which would be designed to avoid all aquatic resources.

☐ I intend to construct/develop a project or perform activities on this site which would be designed to avoid all jurisdictional aquatic resources under Corps authority.

☑ I intend to construct/develop a project or perform activities on this site which may require authorization from the Corps, and the Jurisdictional Determination would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.

☐ I intend to construct/develop a project or perform activities on this site which may require authorization from the Corps; this request is accompanied by my permit application and the jurisdictional determination is to be used in the permitting process.

☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is subject to the ebb and flow of the tide.

☐ A Corps jurisdictional determination is required in order to obtain my local/state authorization.

☐ I intend to contest jurisdiction over a particular aquatic resource and the request the Corps to confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.

☐ I believe that the site may be comprised entirely of dry land.

☑ Other: Due diligence for SCDHEC Mining Permit

*Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an jurisdictional determination cannot be evaluated nor can a jurisdictional determination be issued.

III. TYPE OF REQUEST:

[1]Delineation Concurrence (DC) – A DC provides concurrence that the delineated boundaries of wetlands on a property are a reasonable representation of the aquatic resources on-site. A DC does not address the jurisdictional status of the aquatic resources. (NOTE: A DC is generally the quickest type of standalone request for the Corps to review and process.)

[2]Approved – An AJD is defined in Corps regulations at 33 CFR 331.2. As explained in further detail in RGL 16-01, an AJD is used to indicate that this office has identified the presence or absence of wetlands and/or other aquatic resources on a site, including their accurate location(s) and boundaries, as well as their jurisdictional status. AJDs are valid for 5 years.

[3]Preliminary – A PJD is defined in Corps regulations at 33 CFR 331.2. As explained in further detail in RGL 16-01, a PJD is used to indicate that this office has identified the approximate location(s) and boundaries of wetlands and/or other aquatic resources on a site that are presumed to be subject to regulatory jurisdiction of the Corps of Engineers. Unlike an AJD, a PJD does not represent a definitive, official determination that there are, or that there are not, jurisdictional aquatic resources on a site, and does not have an expiration date.

[4] "No Permit Required" (NPR) Letter- A NPR letter may be provided by the Corps to notify the requestor that an activity will not require a permit (authorization) from the Corps; this letter can only be used if the proposed activity is not a regulated activity, regardless of where the activity may occur. A NPR letter cannot be used to indicate the presence or absence of wetlands and/or other aquatic resources, nor can it be used to determine their jurisdictional status.

NOTE 1: Pre-approved Delineations and/or JDs are NOT a pre-requisite for submitting a DA permit application. Requests for JDs and/or DCs that are not associated with a DA permit application (Standalone Delineation / JD requests) will be reviewed and processed as time allows and based on available resources.

NOTE 2: Although not a requirement, it is recommended that Standalone requests be prepared and submitted by an environmental consultant to expedite the review process.

Select the Appropriate Request:

☐ **Pre-Construction Notification or Department of the Army permit application**

- ☐ with Delineation only (no written concurrence of delineation)
- ☐ with Delineation Concurrence[1]
- ☐ with Preliminary Jurisdictional Determination (PJD)[3]
- ☐ with Approved Jurisdictional Determination (AJD)[2]

☑ **Standalone Delineation / Jurisdictional Determination**

Standalone Delineation / Jurisdictional Determination requests will be reviewed and processed as time allows and based on available resources.

- ☑ Delineation Concurrence[1]
- ☐ Preliminary Jurisdictional Determination (PJD)[3]

☐ Approved Jurisdictional Determination (AJD)[2]

☐ I request that the **Corps delineate** the wetlands and/or other aquatic resources that may be present on my property.

These requests have historically been conducted as a courtesy for private property owners for minor actions. Due to current workload and priorities, the Charleston District Regulatory Division will only provide this service on a limited basis for private individuals on small tracts of land (typically 1 acre or less).

- ☐ with the attached Pre-Construction Notification or Department of the Army permit application

(This may delay processing times. The review of the permit application will not start until the delineation has been completed by the Corps.)

- ☐ with a Delineation Only, an AJD or PJD

☐ **"No Permit Required" (NPR) Letter** as I believe my proposed activity is not regulated[4]

☐ **Unclear** and require additional information to inform my decision.

IV. **LEGAL RIGHT OF ENTRY**

By signing below, I am indicating that I have the authority, or am acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant U.S. Army Corps of Engineers personnel right of entry to legally access the property(ies) subject to this request for the purposes of conducting on-site investigations (e.g., digging and refilling shallow holes) and issuing a jurisdictional determination. I acknowledge that my signature is an affirmation that I possess the requisite property rights to request a jurisdictional determination on the properties subject to this request.

1855 East Main St., Suite 14, 142 Spartanburg, SC 29307	Multiple Spartanburg Co. TPNs (Appendix C)
Mailing Address	Property Address / TMS #(s)
rbirkner@turnkeyprocessing.com	779-230-0349
Email Address	Daytime Phone Number
	Ross Birkner, Procurement Manager
*Signature:	Printed Name and Date

*Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an jurisdictional determination cannot be evaluated nor can a jurisdictional determination be issued.

March 15, 2023

U.S. Army Corps of Engineers
Greenville Field Office
150 Executive Center Drive, Suite 205
Greenville, SC 29615

Attention: Greenville Regulatory

Reference: **Request for Jurisdictional Determination**
Pacolet Quarry Site
Pacolet, Spartanburg County, South Carolina
S&ME Project No. 22610504

Dear Regulatory Project Manager:

On behalf of River Bend Aggregates, LLC, S&ME, Inc. (S&ME) has completed a Wetland Delineation at the above-referenced project area (site). The approximate 782-acre site consists of all or portions of nine Spartanburg County tax parcel numbers, currently owned by multiple owners (**Appendix C**). The site is located southwest and northeast of Hammett Grove Road near Pacolet, Spartanburg County, South Carolina. The site is being proposed as a future quarry site.

The site consists of wooded land, open areas, residences, and a utility easement. We are seeking a Delineation Concurrence (DC) for the site.

♦ Wetland Delineation

On December 6, 13, and 20, 2022, January 5 and 18, 2023, and March 9, 2023, S&ME Biologists Chris Daves, P.W.S., Chris Handley, and Will Trotter conducted the Wetland Delineation. The following features were observed (see **Appendix A** for mapping and representative site photographs and **Appendix B** for Summary Tables):

- 15 Wetlands
- 27 Non-Wetland Waters (Tributaries)
- 62 Non-Aquatic Resources (Ephemeral Drainages/Swales)

Wetlands

Fifteen (15) wetlands (1.104 acres) were observed on the site (Photographs 1-10). The wetlands are classified as palustrine forested (PFO), Palustrine Scrub-Shrub (PSS), and Palustrine Emergent (PEM), riparian and headwater wetlands.

Non-Wetland Waters (Tributaries)

Twenty-seven (27) tributaries (31,290 linear feet (lf)/2.910 acres) were observed on the site (Photographs 11-20). The tributaries are classified as perennial and seasonal. The tributaries had varied widths (2-10 feet) and a mixture of sand, cobble, and boulder substrates.

Non-Aquatic Resources (Ephemeral Drainages/Swales)

Sixty-two (62) ephemeral drainages/swales (23,463 lf) were observed on the site (Photographs 21-28). No evidence of hydrology or an Ordinary-High-Water-Mark (OHWM) were observed during site visits.

In summary, the site contains approximately **4.014 acres** of Aquatic Resources.

♦ Uplands

Upland areas on the site consist of pine forestland, mixed hardwoods, pine-mixed hardwoods, and open areas/utility easement. These portions of the site consist of the non-hydric soil series Bethlehem-Saw, Cecil, Cecil-Bethlehem, and Pacolet as listed in the Soil Survey of Spartanburg County, South Carolina, and the U.S. Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS) Web Soil Survey (Exhibit 4 – Soils Exhibit). Wetland vegetation, hydric soils, or hydrology were not observed in the upland areas.

♦ Enclosures

Attached in Appendices A-E, please find the following information for your review:

Appendix A

Exhibit 1 - Vicinity Exhibit, Exhibit 2 - Topographic Exhibit, Exhibit 3 – Aerial Index Exhibit, Exhibits 3A-3H – Aerial Exhibits, Exhibit 4 - Soils Exhibit, Exhibit 5 - NWI Exhibit, Exhibit 6 – LIDAR Exhibit, Site Photographs

Appendix B

Summary Tables

Appendix C

Owner Information

Appendix D

Wetland/Upland Datasheets

Appendix E

Antecedent Precipitation Tool

♦ Closing

Thank you for your time and attention to this project. If we can provide additional information, please do not hesitate to contact us at 803-561-9024.

Sincerely,

S&ME

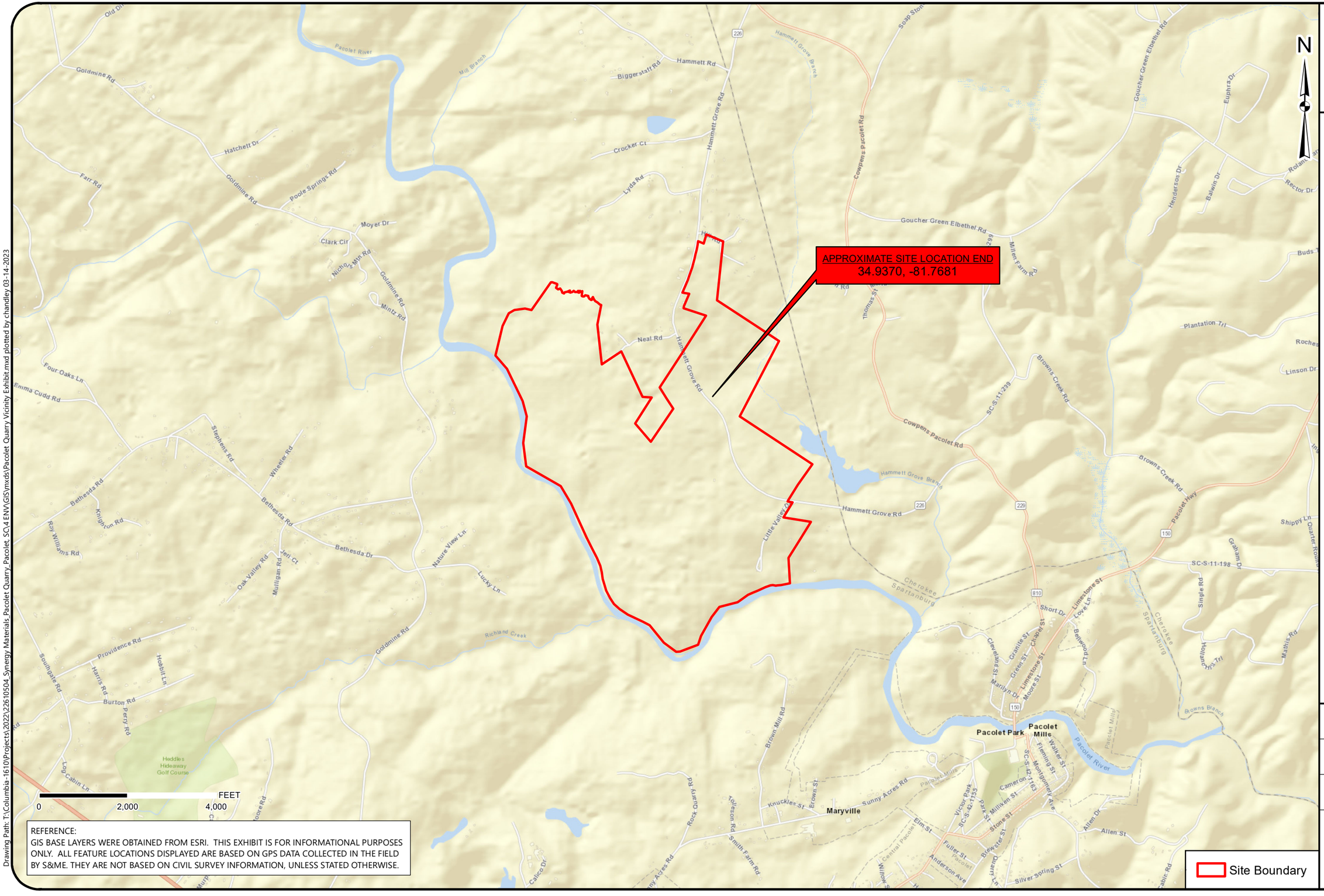
Chris Handley
Biologist
chandley@smeinc.com

Chris Daves, P.W.S.
Senior Scientist
cdaves@smeinc.com

Attachments

Appendix A

Exhibits and Site Photographs



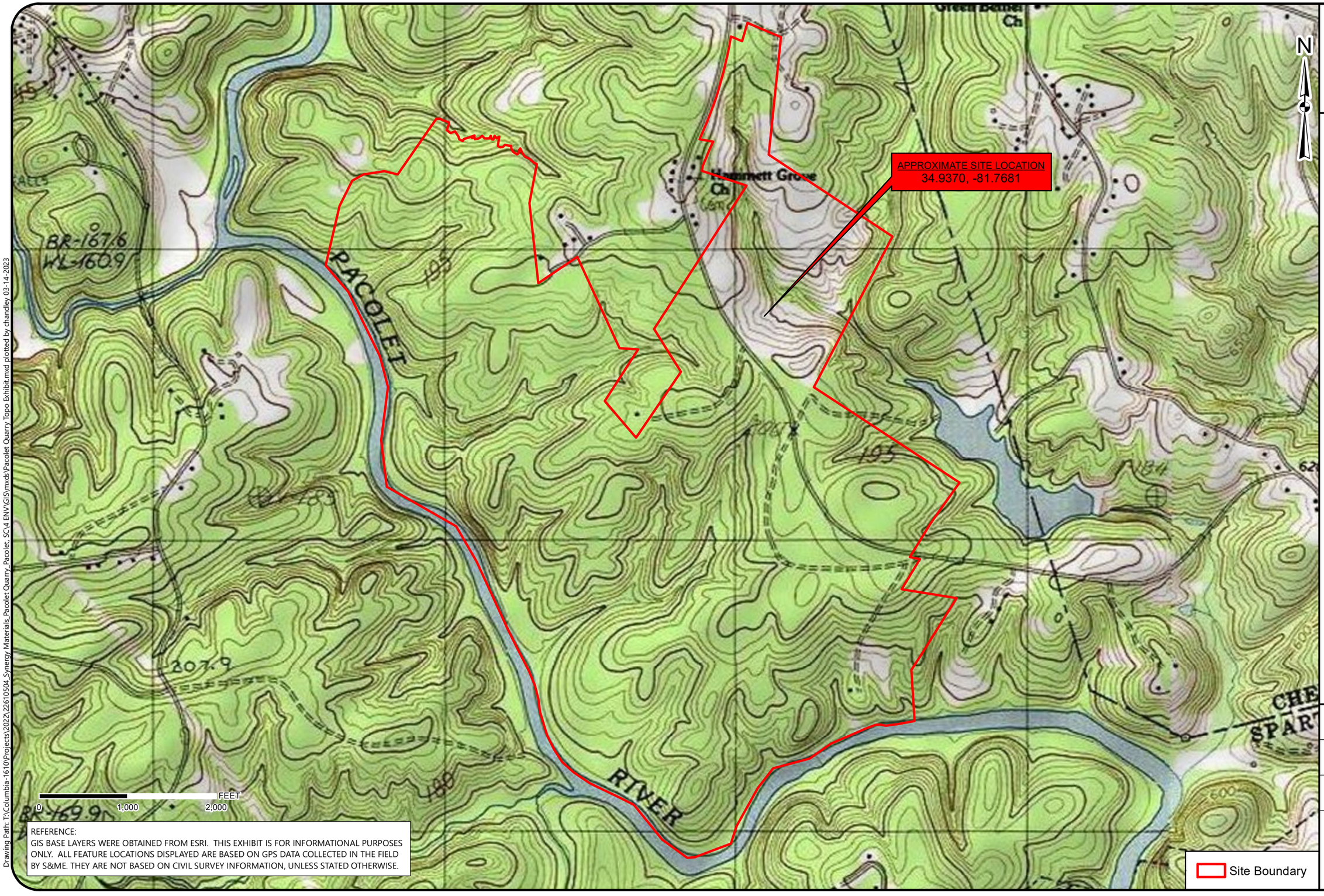
REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM ESRI. THIS EXHIBIT IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE BASED ON GPS DATA COLLECTED IN THE FIELD BY S&ME. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Vicinity Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: World Street Map

SCALE:	1 " = 2,000 '
REVISION DATE:	3-14-23
PROJECT NUMBER	22610504
EXHIBIT NO.	1

Drawing Path: T:\Columbia-1610\Projects\2022\22610504_Synergy Materials_Pacolet Quarry_Pacolet, SC\4 ENV\GIS\mxds\Pacolet Quarry Vicinity Exhibit.mxd plotted by chandley 03-14-2023



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Topographic Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: USGS 7.5-Minute Topo Quad Pacolet, SC 1983

SCALE:	1 " = 1,000 '
REVISION DATE:	3-14-23
PROJECT NUMBER	22610504
EXHIBIT NO.	2

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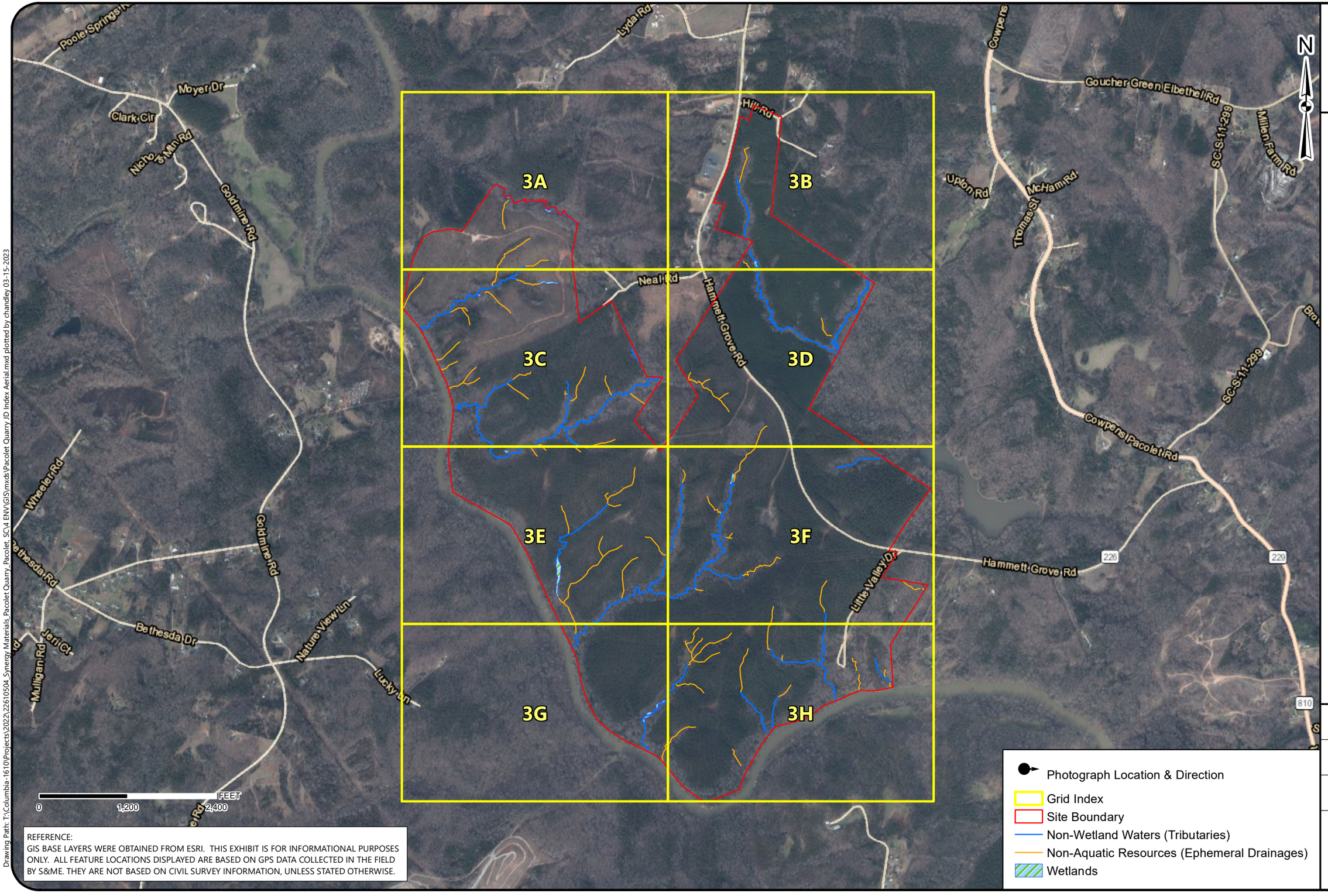

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Aerial Index Exhibit

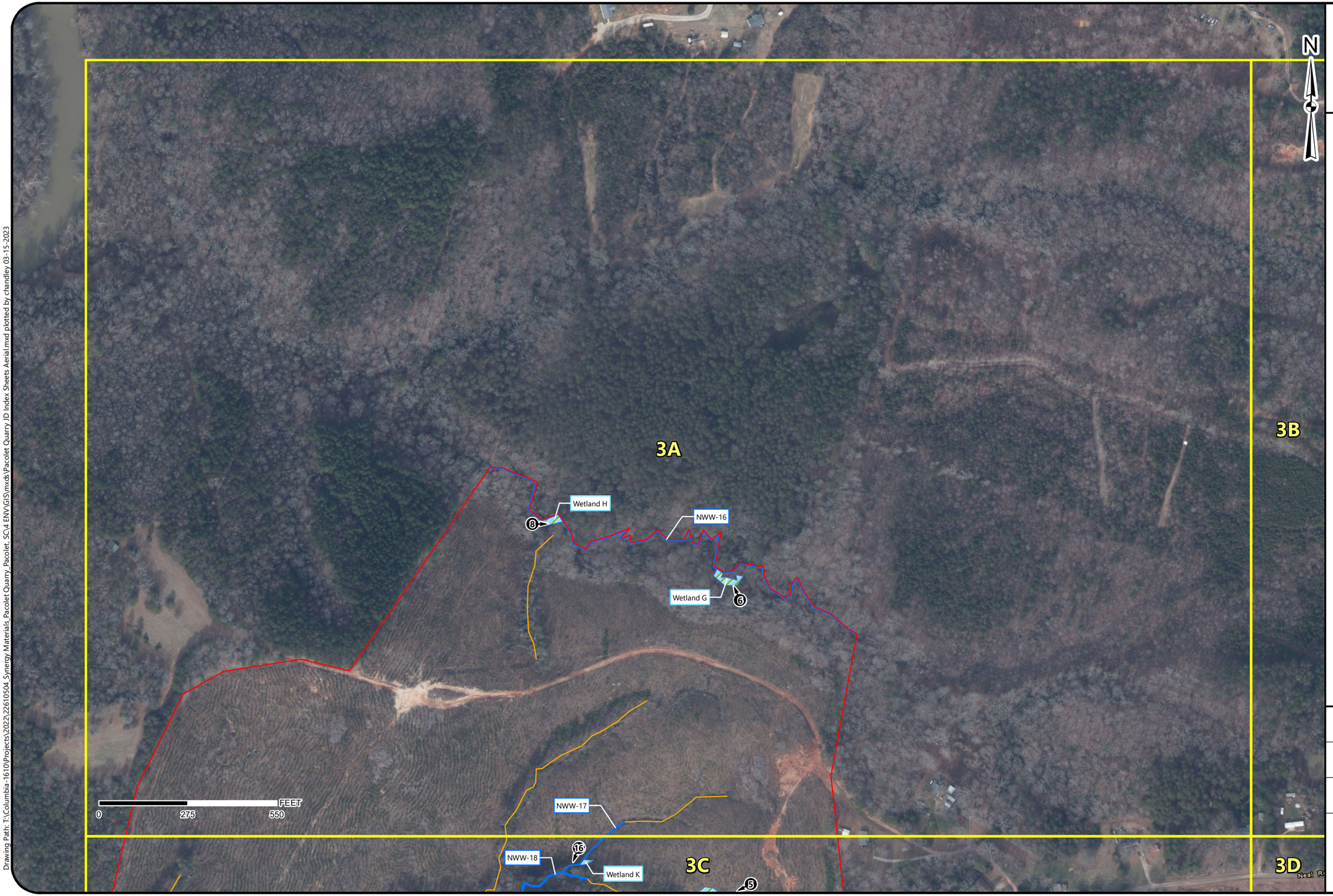
Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020

SCALE:
1 " = 1,200 '

REVISION DATE:
3-15-23

PROJECT NUMBER
22610504

EXHIBIT NO.
3



Aerial Index Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020

SCALE:
1 " = 275 '

REVISION DATE:
3-15-23

PROJECT NUMBER
22610504

EXHIBIT NO.

3A

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Aerial Index Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020

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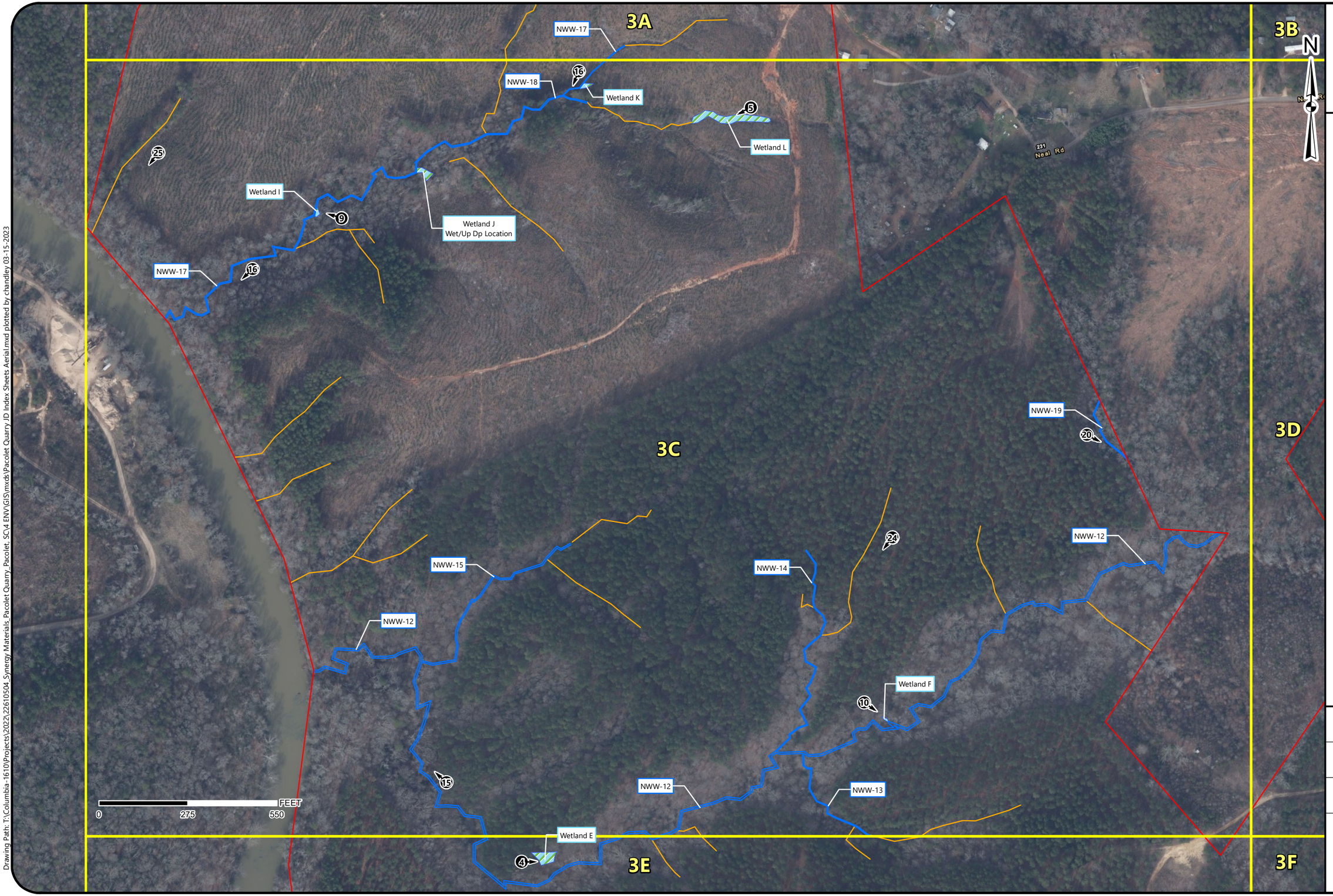
REVISION DATE:	3-15-23
PROJECT NUMBER	22610504
EXHIBIT NO.	**3B**



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Aerial Index Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020

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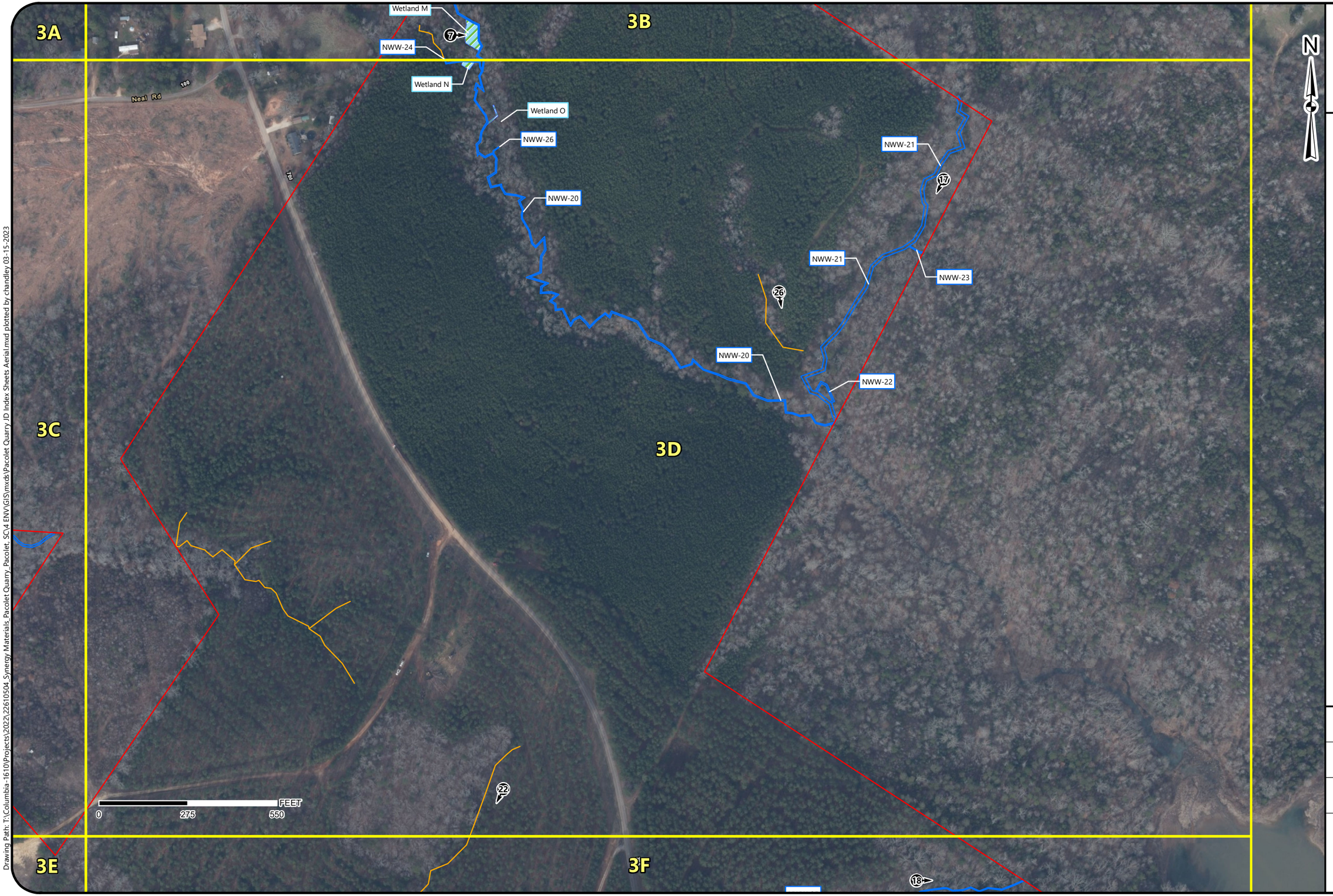
REVISION DATE:
3-15-23

PROJECT NUMBER
22610504

EXHIBIT NO.

3C



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Aerial Index Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020

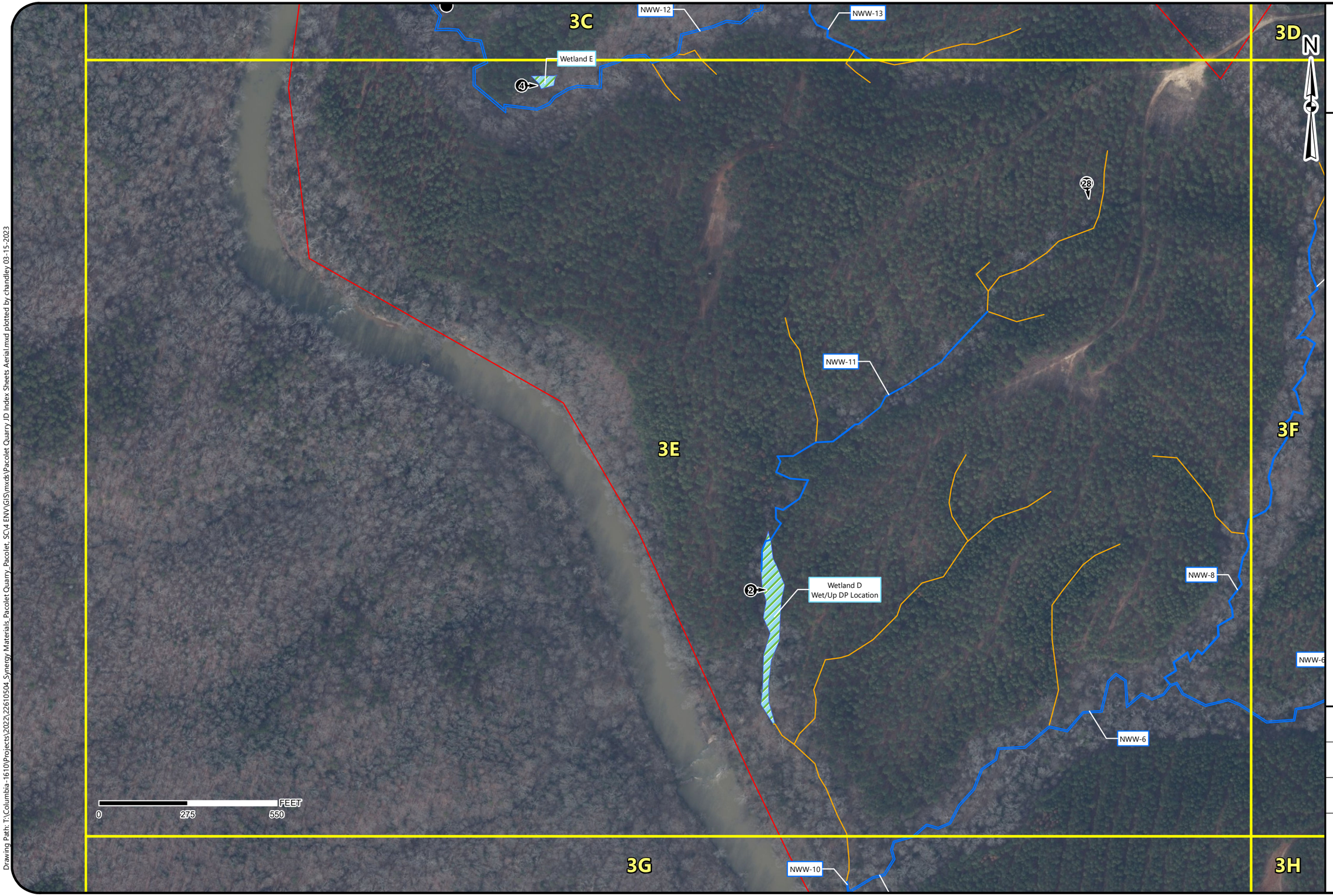
SCALE:
1 " = 275 '

REVISION DATE:
3-15-23

PROJECT NUMBER
22610504

EXHIBIT NO.

3D



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Aerial Index Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020

SCALE:
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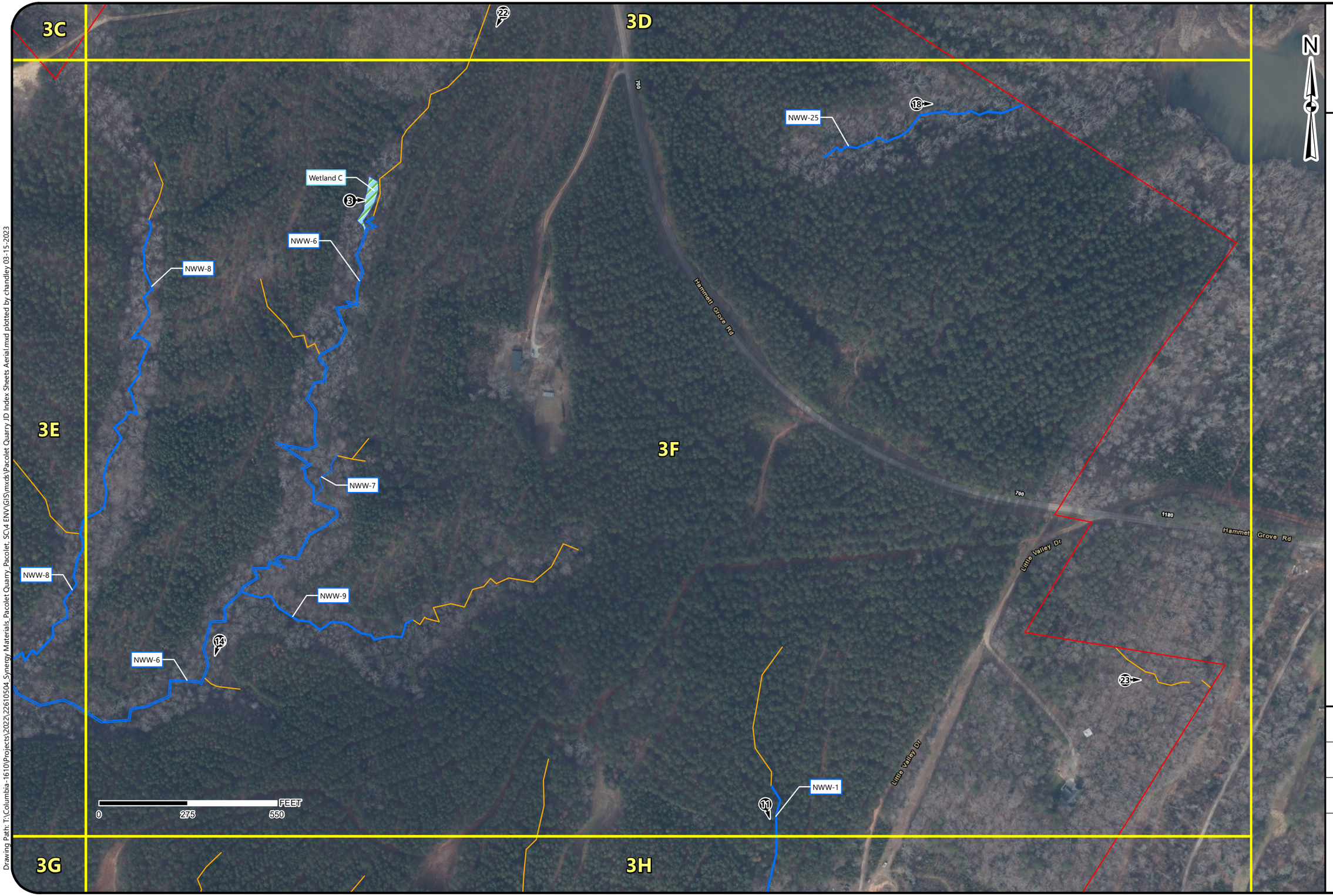
REVISION DATE:
3-15-23

PROJECT NUMBER
22610504

EXHIBIT NO.

3E



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Aerial Index Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020

SCALE:
1 " = 275 '

REVISION DATE:
3-15-23

PROJECT NUMBER
22610504

EXHIBIT NO.

3F

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Aerial Index Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020

SCALE:	1 " = 275 '
REVISION DATE:	3-15-23
PROJECT NUMBER	22610504
EXHIBIT NO.	**3G**

3E

3F

3G

3H

NWW-1

NWW-2

NWW-3

NWW-4

NWW-5

NWW-27

Wetland A

11

12

13

19

21

27

N

0 275 550 FEET

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Aerial Index Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020

SCALE:
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REVISION DATE:
3-15-23

PROJECT NUMBER
22610504

EXHIBIT NO.

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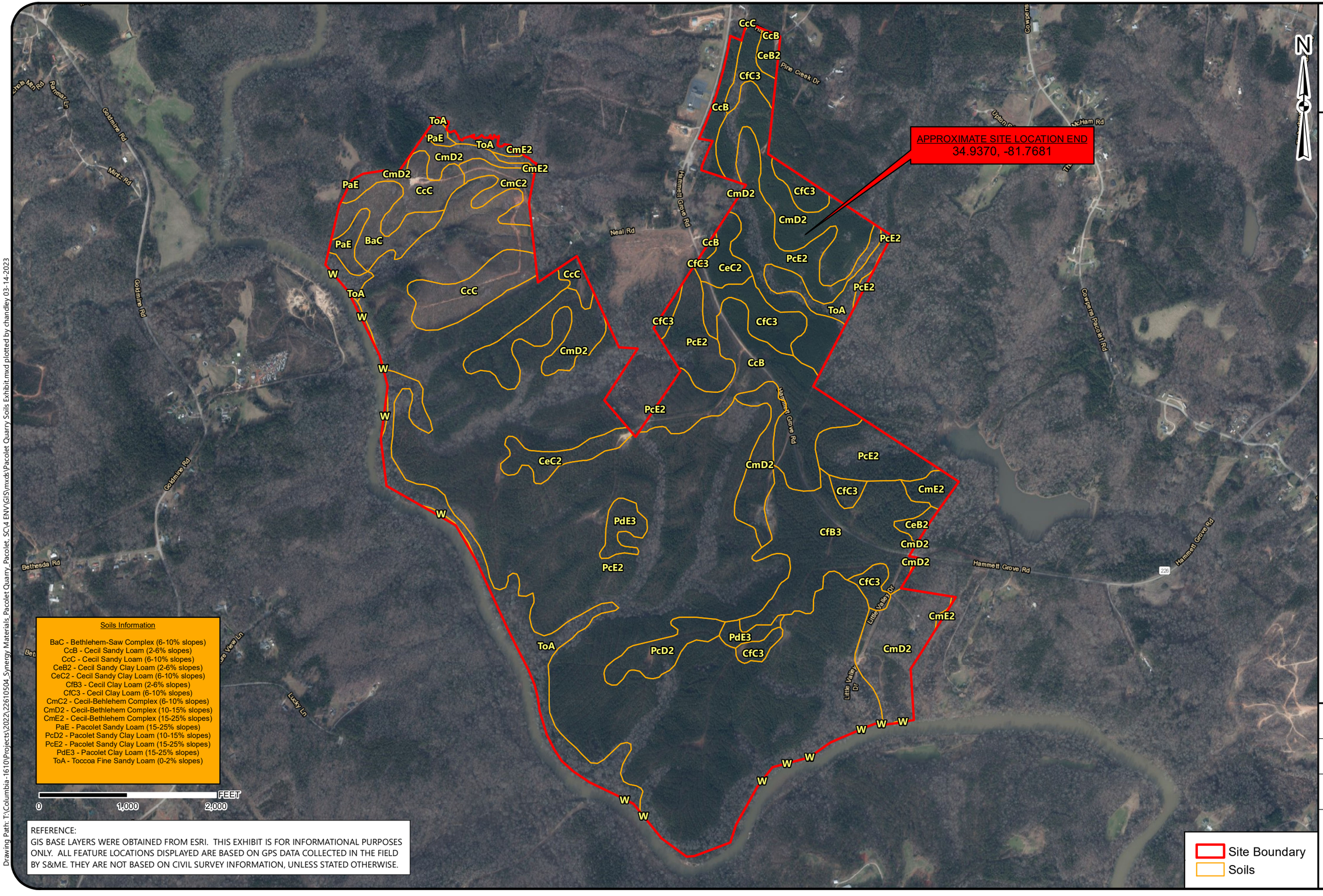

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Soils Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020 & NRCS

SCALE:	1 " = 1,000 '
REVISION DATE:	3-14-23
PROJECT NUMBER	22610504
EXHIBIT NO.	4

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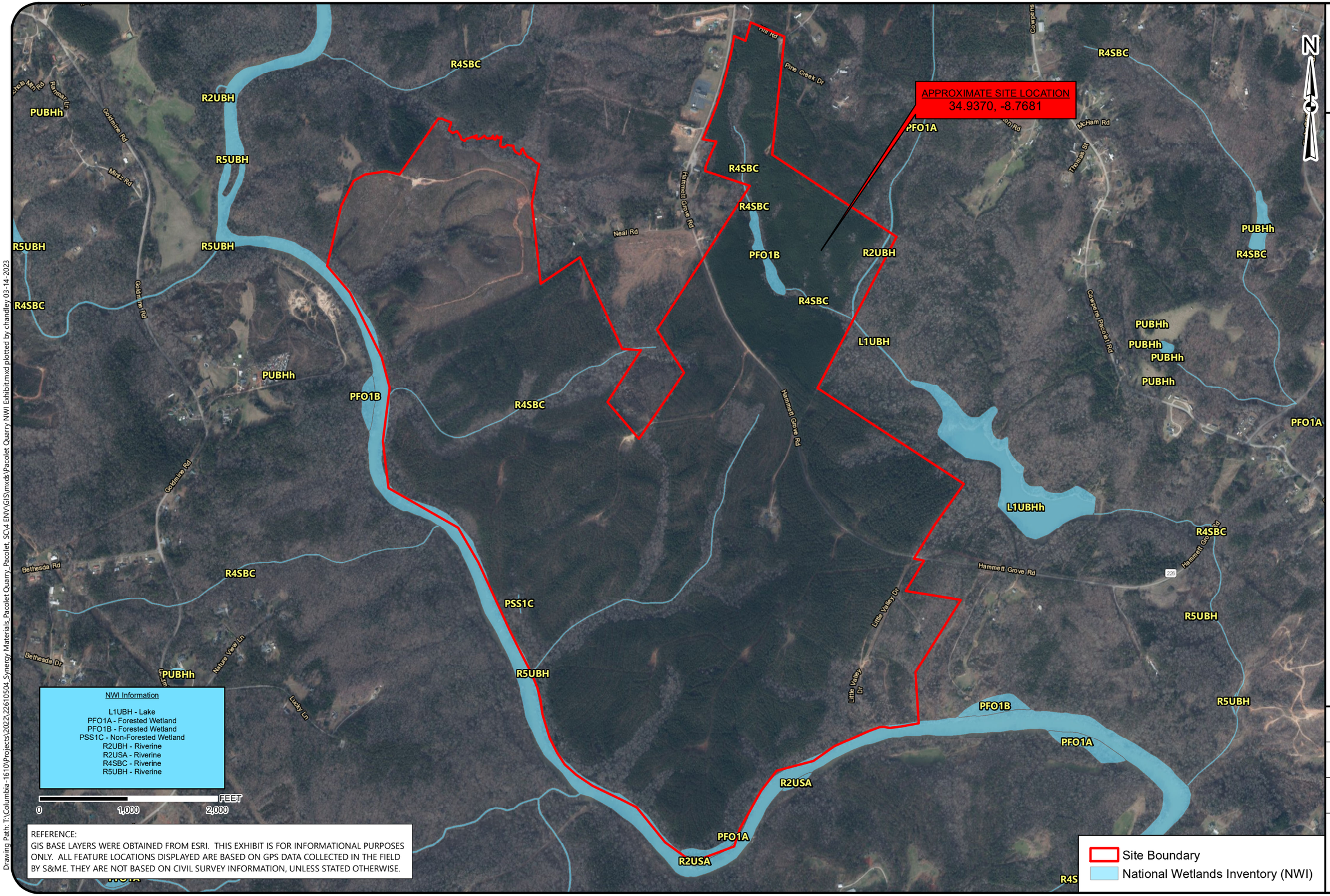

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NWI Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020 & USFWS

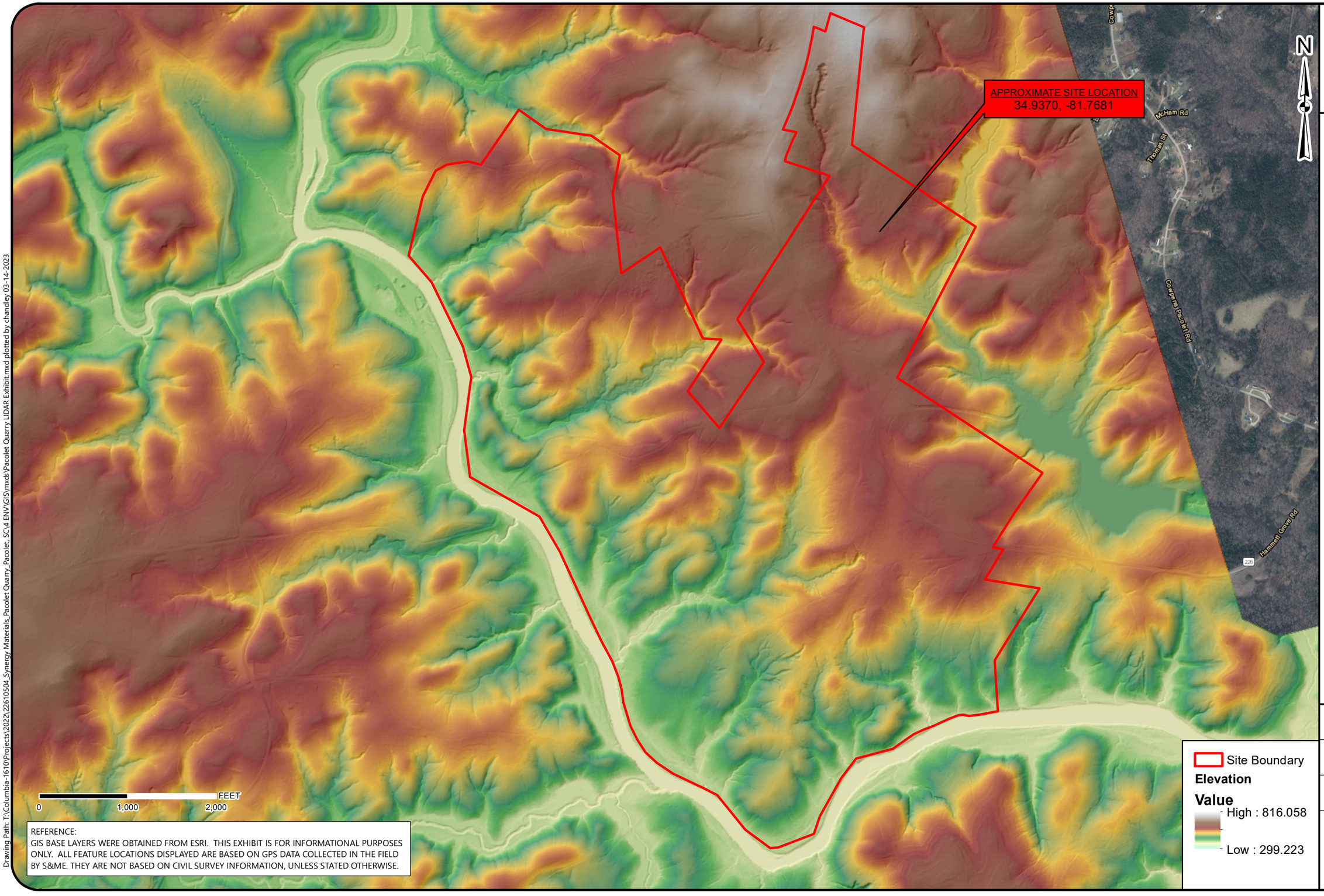
SCALE:
1 " = 1,000 '

REVISION DATE:
3-14-23

PROJECT NUMBER
22610504

EXHIBIT NO.

5



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LIDAR Exhibit

Pacolet Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020 & SCDNR

SCALE:	1 " = 1,000 '
REVISION DATE:	3-14-23
PROJECT NUMBER	22610504
EXHIBIT NO.	6

Drawing Path: T:\Columbia-1610\Projects\2022\22610504_Synergy Materials_Pacolet Quarry_Pacolet, SC\4 ENV\GIS\mxds\Pacolet Quarry LIDAR Exhibit.mxd plotted by chandley 03-14-2023

1 Wetland A.

2 Wetland D.

3 Wetland C.

4 Wetland E.

	Site Photographs **Pacolet Quarry Site** **Pacolet, Spartanburg County, South Carolina**	S&ME Project 22610504	
		Taken by: CD/CH/WT/AS	**12/13, 12/20, 22; 1/5, 1/18, 3//9, 23**

5 Wetland L.

6 Wetland G.

7 Wetland M.

8 Wetland H.

	Site Photographs **Pacolet Quarry Site** **Pacolet, Spartanburg County, South Carolina**	S&ME Project 22610504	
		Taken by: CD/CH/WT/AS	**12/13, 12/20, 22; 1/5, 1/18, 3//9, 23**

9 Wetland I.

10 Wetland F.

11 NWW-1.

12 NWW-3.

	Site Photographs **Pacolet Quarry Site** **Pacolet, Spartanburg County, South Carolina**	S&ME Project 22610504	
		Taken by: CD/CH/WT/AS	**12/13, 12/20, 22; 1/5, 1/18, 3//9, 23**

13 NWW-5.

14 NWW-6.

15 NWW-12.

16 NWW-17.

	Site Photographs **Pacolet Quarry Site** **Pacolet, Spartanburg County, South Carolina**	S&ME Project 22610504
		Taken by: CD/CH/WT/AS — **12/13, 12/20, 22; 1/5, 1/18, 3//9, 23**

17 NWW-21.

18 NWW-25.

19 NWW-27.

20 NWW-19.

S&ME	**Site Photographs** **Pacolet Quarry Site** **Pacolet, Spartanburg County, South Carolina**	S&ME Project 22610504	
		Taken by: CD/CH/WT/AS	**12/13, 12/20, 22; 1/5, 1/18, 3//9, 23**

21 NAR-7.

22 NAR-14.

23 NAR-59.

24 NAR-39.

	Site Photographs **Pacolet Quarry Site** **Pacolet, Spartanburg County, South Carolina**	S&ME Project 22610504	
		Taken by: CD/CH/WT/AS	**12/13, 12/20, 22; 1/5, 1/18, 3//9, 23**

25 NAR-51.

26 NAR-58.

27 NAR-12.

28 NAR-22.

	Site Photographs **Pacolet Quarry Site** **Pacolet, Spartanburg County, South Carolina**	S&ME Project 22610504
		Taken by: CD/CH/WT/AS — **12/13, 12/20, 22; 1/5, 1/18, 3//9, 23**

Appendix B

Summary Tables

Label	Type	Acreage
Wetland A	PFO-Riparian	0.137
Wetland B	PFO-Riparian	0.056
Wetland C	PFO-Riparian	0.089
Wetland D	PFO-Riparian	0.458
Wetland E	PFO-Non-Abutting (Floodplain)	0.046
Wetland F	PFO-Riparian	0.003
Wetland G	PFO-Riparian	0.046
Wetland H	PFO-Riparian	0.025
Wetland I	PFO-Riparian	0.006
Wetland J	PFO-Riparian	0.021
Wetland K	PEM-Riparian	0.009
Wetland L	PSS-Headwater	0.114
Wetland M	PFO-Riparian	0.072
Wetland N	PFO-Riparian	0.014
Wetland O	Linear-PFO	0.007
		1.104

Label	Linear Footage	Avg. Width	Acreage	Type
NWW-1	1479	3	0.102	Seasonal
NWW-2	868	2	0.040	Seasonal
NWW-3	475	2	0.022	Seasonal
NWW-4	858	2	0.039	Seasonal
NWW-5	1658	2	0.076	Seasonal
NWW-6	4696	5	0.539	Seasonal
NWW-7	167	3	0.012	Seasonal
NWW-8	1872	3	0.129	Seasonal
NWW-9	632	3	0.044	Seasonal
NWW-10	32	4	0.003	Seasonal
NWW-11	1348	2	0.062	Seasonal
NWW-12	4633	6	0.638	Seasonal
NWW-13	382	3	0.026	Seasonal
NWW-14	770	3	0.053	Seasonal
NWW-15	696	3	0.048	Seasonal
NWW-16	1868	3	0.129	Seasonal
NWW-17	1896	4	0.174	Seasonal
NWW-18	251	2	0.012	Seasonal
NWW-19	235	3	0.016	Seasonal
NWW-20	3725	4	0.342	Seasonal
NWW-21	1318	10	0.302	Perennial
NWW-22	103	5	0.012	Seasonal
NWW-23	47	3	0.003	Seasonal
NWW-24	149	3	0.010	Seasonal
NWW-25	694	3	0.048	Seasonal
NWW-26	26	2	0.001	Seasonal
NWW-27	413	3	0.028	Seasonal
	31290		**2.910**	

Label	width	Linear Footage
NAR-1	2	468
NAR-2	2	85
NAR-3	3	635
NAR-4	2	246
NAR-5	2	623
NAR-6	2	262
NAR-7	2	759
NAR-8	2	450
NAR-9	3	41
NAR-10	4	665
NAR-11	2	255
NAR-12	5	675
NAR-13	5	416
NAR-14	2	942
NAR-15	3	347
NAR-16	3	668
NAR-17	3	118
NAR-18	3	128
NAR-19	3	41
NAR-20	2	191
NAR-21	2	406
NAR-22	2	725
NAR-23	2	1195
NAR-24	4	568
NAR-25	2	293
NAR-26	2	184
NAR-27	1	118
NAR-28	2	695
NAR-29	2	403
NAR-30	3	359
NAR-31	3	289
NAR-32	2	145
NAR-33	2	157
NAR-34	4	487
NAR-35	3	145
NAR-36	2	255
NAR-37	2	292
NAR-38	2	83
NAR-39	2	546
NAR-40	2	413
NAR-41	2	426
NAR-42	2	280
NAR-43	2	257
NAR-44	2	469
NAR-45	2	917
NAR-46	2	342

NAR-47	2	353
NAR-48	2	491
NAR-49	2	255
NAR-50	2	263
NAR-51	20	505
NAR-52	2	792
NAR-53	2	136
NAR-54	2	112
NAR-55	2	154
NAR-56	3	538
NAR-57	2	146
NAR-58	3	310
NAR-59	3	311
NAR-60	3	111
NAR-61	3	84
NAR-62	3	435
		23463

Appendix C

Owner Information

Tax Parcel Owner Information

Tax Parcel No.	Owner(s) Name	Owner Address	Site Contact
3-25-00-014.01	Brett and John Spencer	1150 Hammett Grove Rd. Spartanburg, SC 29307	River Bend Aggregates, LLC Ross Birkner, Procurement Manager 1855 East Main St. Spartanburg, SC 29307 779-230-0349 rbirkner@turnkeyprocessing.com
3-25-00-014.02	Brett and John Spencer	1150 Hammett Grove Rd. Spartanburg, SC 29307	
3-25-00-014.00	Brett and John Spencer	1150 Hammett Grove Rd. Spartanburg, SC 29307	
3-25-00-013.00 (Portion of)	Jonathan Nguyen	406 W Abington Way Spartanburg, SC 29301	
3-25-00-013.02	Joseph and Sarah Sonefeld	1170 Hammett Grove Rd. Spartanburg, SC 29307	
3-25-00-010.00	Wiley Fork Legacy, LLC	PO Box 3524 Spartanburg, SC 29304	
3-25-00-006.00	Wiley Fork Legacy, LLC	PO Box 3524 Spartanburg, SC 29304	
3-25-00-006.06	Wiley Fork Legacy, LLC	PO Box 3524 Spartanburg, SC 29304	
3-22-00-016.00	Wiley Fork Legacy, LLC	PO Box 3524 Spartanburg, SC 29304	

Appendix D

Wetland and Upland Datasheets

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Pacolet Quarry Site **City/County:** Spartanburg/Spartanburg **Sampling Date:** 13-Dec-22

Applicant/Owner: River Bend Aggregates, LLC **State:** SC **Sampling Point:** WET A-WET

Investigator(s): Chris Daves, P.W.S.-S&ME, Inc. **Section, Township, Range:** S _____ T _____ R _____

Landform (hillslope, terrace, etc.): Base of hillslope **Local relief (concave, convex, none):** concave **Slope:** 0.0% / 0.0 °

Subregion (LRR or MLRA): MLRA 136 in LRR P **Lat.:** 34.9292 **Long.:** -81.7705 **Datum:** NAD83

Soil Map Unit Name: Toccoa Fine Sandy Loam (ToA) **NWI classification:** Upland

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

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **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 ◉	No ○	
Hydric Soil Present?	Yes ◉	No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Wetland Hydrology Present?	Yes ◉	No ○	

Remarks:

Data point taken on inside edge of Wetland A.

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ 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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ◉	No ○	Depth (inches): 10	**Wetland Hydrology Present?** Yes ◉ No ○
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches): 1	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicators were observed.

VEGETATION (Five/Four Strata)- Use scientific names of plants.

Sampling Point: WET A-WET

Tree Stratum (Plot size: 30-ft.)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Ulmus americana	25	☑	55.6%	FACW
2. Acer rubrum	20	☑	44.4%	FAC
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
	45	= Total Cover		
Sapling-Sapling/Shrub Stratum (Plot size: 15-ft.)				
1. Ulmus americana	15	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	15	= Total Cover		
Shrub Stratum (Plot size: 15-ft.)				
1. Ligustrum sinense	20	☑	66.7%	FACU
2. Ilex opaca	5	☐	16.7%	FACU
3. Carpinus caroliniana	5	☐	16.7%	FAC
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
	30	= Total Cover		
Herb Stratum (Plot size: 5-ft.)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
11.	0	☐	0.0%	
12.	0	☐	0.0%	
	0	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft.)				
1. Bignonia capreolata	5	☑	100.0%	FAC
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
	5	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	30	x 3 =	90
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	95 (A)		270 (B)

Prevalence Index = B/A = 2.842

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Definition of Vegetation Strata:

Four Vegetation Strata:

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

Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – Consists of all woody vines greater than 3.28 ft in height.

Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vines – Consists of all woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was observed.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: WET A-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
1-5	10YR	4/2	90	10YR	5/6	10	C	M	Sandy Loam	
5-20	10YR	5/2	90	10YR	5/6	10	C	M	Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147,148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147,148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators 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:

Hydric soil indicators were observed.

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Pacolet Quarry Site **City/County:** Spartanburg/Spartanburg **Sampling Date:** 13-Dec-22

Applicant/Owner: River Bend Aggregates, LLC **State:** SC **Sampling Point:** **WET A-UP**

Investigator(s): Chris Daves, P.W.S.-S&ME, Inc. **Section, Township, Range:** **S** **T** **R**

Landform (hillslope, terrace, etc.): Hillslope **Local relief (concave, convex, none):** concave **Slope:** 0.0% / 0.0 °

Subregion (LRR or MLRA): MLRA 136 in LRR P **Lat.:** 34.9291 **Long.:** -81.7704 **Datum:** NAD83

Soil Map Unit Name: Toccoa Fine Sandy Loam (ToA) **NWI classification:** Upland

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

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **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 ○	No ◉	
Hydric Soil Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:

Data point taken outside of the edge of Wetland A.

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ 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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ○	No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):	**Wetland Hydrology Present?** Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicators were not observed.

VEGETATION (Five/Four Strata)- Use scientific names of plants.

Sampling Point: WET A-UP

Tree Stratum (Plot size: 30-ft.)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Liquidambar styraciflua	25	☑	50.0%	FAC
2. Liriodendron tulipifera	25	☑	50.0%	FACU
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
	50	= Total Cover		
Sapling-Sapling/Shrub Stratum (Plot size: 15-ft.)				
1. Acer rubrum	15	☑	100.0%	FAC
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	15	= Total Cover		
Shrub Stratum (Plot size: 15-ft.)				
1. Ligustrum sinense	20	☑	66.7%	FACU
2. Ilex opaca	10	☑	33.3%	FACU
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
	30	= Total Cover		
Herb Stratum (Plot size: 5-ft.)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
11.	0	☐	0.0%	
12.	0	☐	0.0%	
	0	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft.)				
1. Vitis rotundifolia	5	☑	100.0%	FAC
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
	5	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	45	x 3 =	135	
FACU species	55	x 4 =	220	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	355	(B)

Prevalence Index = B/A = 3.550

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Definition of Vegetation Strata:

Four Vegetation Strata:

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

Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – Consists of all woody vines greater than 3.28 ft in height.

Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vines – Consists of all woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not observed.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: WET A-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
1-3	10YR 4/2	100					Sandy Loam	
3-10	10YR 5/3	100					Sandy Loam	
10-20	10YR 5/4	100					Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147,148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147,148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators 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:

Hydric soil indicators were not observed.

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Pacolet Quarry Site **City/County:** Spartanburg/Spartanburg **Sampling Date:** 20-Dec-22

Applicant/Owner: River Bend Aggregates, LLC **State:** SC **Sampling Point:** **WET D-WET**

Investigator(s): Chris Daves, P.W.S.-S&ME, Inc. **Section, Township, Range:** **S** **T** **R**

Landform (hillslope, terrace, etc.): Base of hillslope **Local relief (concave, convex, none):** concave **Slope:** 0.0% / 0.0 °

Subregion (LRR or MLRA): MLRA 136 in LRR P **Lat.:** 34.9344 **Long.:** -81.7745 **Datum:** NAD83

Soil Map Unit Name: Toccoa Fine Sandy Loam (ToA) **NWI classification:** Upland

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

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **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 ◉	No ○	
Hydric Soil Present?	Yes ◉	No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Wetland Hydrology Present?	Yes ◉	No ○	

Remarks:

Data point taken on the inside edge of Wetland D.

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ 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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ○	No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches): 8	**Wetland Hydrology Present?** Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicators were observed.

VEGETATION (Five/Four Strata)- Use scientific names of plants.

Sampling Point: WET D-WET

Tree Stratum (Plot size: 30-ft.)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Platanus occidentalis	20	☑	36.4%	FACW
2. Betula nigra	15	☑	27.3%	FACW
3. Liquidambar styraciflua	10	☐	18.2%	FAC
4. Ulmus americana	10	☐	18.2%	FACW
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
	55	= Total Cover		
Sapling-Sapling/Shrub Stratum (Plot size: 15-ft.)				
1. Betula nigra	15	☑	50.0%	FACW
2. Carpinus caroliniana	15	☑	50.0%	FAC
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	30	= Total Cover		
Shrub Stratum (Plot size: 15-ft.)				
1. Ligustrum sinense	25	☑	100.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
	25	= Total Cover		
Herb Stratum (Plot size: 5-ft.)				
1. Microstegium vimineum	30	☑	100.0%	FAC
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
11.	0	☐	0.0%	
12.	0	☐	0.0%	
	30	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft.)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	60	x 2 =	120	
FAC species	55	x 3 =	165	
FACU species	25	x 4 =	100	
UPL species	0	x 5 =	0	
Column Totals:	140	(A)	385	(B)

Prevalence Index = B/A = 2.750

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☑ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Definition of Vegetation Strata:

Four Vegetation Strata:

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

Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – Consists of all woody vines greater than 3.28 ft in height.

Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vines – Consists of all woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was observed.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: WET D-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
1-20	10YR 5/2	90	10YR 5/6	10	C	M	Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147,148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147,148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators 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:

Hydric soil indicators were observed.

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Pacolet Quarry Site **City/County:** Spartanburg/Spartanburg **Sampling Date:** 20-Dec-22

Applicant/Owner: River Bend Aggregates, LLC **State:** SC **Sampling Point:** **WET D-UP**

Investigator(s): Chris Daves, P.W.S.-S&ME, Inc. **Section, Township, Range:** **S** **T** **R**

Landform (hillslope, terrace, etc.): Hillslope **Local relief (concave, convex, none):** **Slope:** 0.0% / 0.0 °

Subregion (LRR or MLRA): MLRA 136 in LRR P **Lat.:** 34.9344 **Long.:** -81.7743 **Datum:** NAD83

Soil Map Unit Name: Toccoa Fine Sandy Loam (ToA) **NWI classification:** Upland

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

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **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 ○	No ◉	
Hydric Soil Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:

Data point taken outside of the edge of Wetland D.

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ 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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ○	No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):	**Wetland Hydrology Present?** Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicators were not observed.

VEGETATION (Five/Four Strata)- Use scientific names of plants.

Sampling Point: WET D-UP

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30-ft.)				
1. Pinus taeda	60	☑	100.0%	FAC
2.		☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
	60	= Total Cover		
Sapling-Sapling/Shrub Stratum (Plot size: 15-ft.)				
1. Liquidambar styraciflua	5	☑	100.0%	FAC
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	5	= Total Cover		
Shrub Stratum (Plot size: 15-ft.)				
1. Ligustrum sinense	15	☑	100.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
	15	= Total Cover		
Herb Stratum (Plot size: 5-ft.)				
1. Polystichum acrostichoides	5	☑	100.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
11.	0	☐	0.0%	
12.	0	☐	0.0%	
	5	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft.)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	65	x 3 =	195	
FACU species	20	x 4 =	80	
UPL species	0	x 5 =	0	
Column Totals:	85	(A)	275	(B)

Prevalence Index = B/A = 3.235

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Definition of Vegetation Strata:

Four Vegetation Strata:

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

Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – Consists of all woody vines greater than 3.28 ft in height.

Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vines – Consists of all woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not observed.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: WET D-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
1-3	10YR 4/2	100					Loamy Sand	
3-8	10YR 5/4	100					Sandy Loam	
8-20	10YR 5/6	100					Loamy Clay	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147,148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147,148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators 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:

Hydric soil indicators were not observed.

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Pacolet Quarry Site **City/County:** Spartanburg/Spartanburg **Sampling Date:** 05-Jan-23

Applicant/Owner: River Bend Aggregates, LLC **State:** SC **Sampling Point:** WET J-WET

Investigator(s): Chris Handley, S&ME, Inc. **Section, Township, Range:** S T R

Landform (hillslope, terrace, etc.): Base of hillslope **Local relief (concave, convex, none):** concave **Slope:** 0.0% / 0.0 °

Subregion (LRR or MLRA): MLRA 136 in LRR P **Lat.:** 34.9448 **Long.:** -81.7782 **Datum:** NAD83

Soil Map Unit Name: Pacolet Sandy Clay Loam (PcE2) **NWI classification:** Upland

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

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **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 ◉	No ○	
Hydric Soil Present?	Yes ◉	No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Wetland Hydrology Present?	Yes ◉	No ○	

Remarks:

Data point taken within edge of Wetland J.

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ 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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ○	No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches): 1	**Wetland Hydrology Present?** Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicators were observed.

VEGETATION (Five/Four Strata)- Use scientific names of plants.

Sampling Point: WET J-WET

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30-ft.)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
	0	= Total Cover		
Sapling-Sapling/Shrub Stratum (Plot size: 15-ft.)				
1.		☐	0.0%	
2.		☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	0	= Total Cover		
Shrub Stratum (Plot size: 15-ft.)				
1. Ilex opaca	10	☑	50.0%	FACU
2. Carpinus caroliniana	10	☑	50.0%	FAC
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
	20	= Total Cover		
Herb Stratum (Plot size: 5-ft.)				
1. Woodwardia areolata	5	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
11.	0	☐	0.0%	
12.	0	☐	0.0%	
	5	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft.)				
1. Vitis rotundifolia	10	☑	100.0%	FAC
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
	10	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	5	x 2 =	10	
FAC species	20	x 3 =	60	
FACU species	10	x 4 =	40	
UPL species	0	x 5 =	0	
Column Totals:	35	(A)	110	(B)

Prevalence Index = B/A = 3.143

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Definition of Vegetation Strata:

Four Vegetation Strata:

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

Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – Consists of all woody vines greater than 3.28 ft in height.

Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vines – Consists of all woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was observed.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: WET J-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc²	Texture	Remarks
1-20	10YR 4/2	90	10YR 5/6	10	C	M	Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147,148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147,148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators 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:

Hydric soil indicators were observed.

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Pacolet Quarry Site **City/County:** Spartanburg/Spartanburg **Sampling Date:** 05-Jan-23

Applicant/Owner: River Bend Aggregates, LLC **State:** SC **Sampling Point:** **WET J-UP**

Investigator(s): Chris Handley, S&ME, Inc. **Section, Township, Range:** **S** **T** **R**

Landform (hillslope, terrace, etc.): Hillslope **Local relief (concave, convex, none):** concave **Slope:** 0.0% / 0.0 °

Subregion (LRR or MLRA): MLRA 136 in LRR P **Lat.:** 34.9447 **Long.:** -81.7781 **Datum:** NAD83

Soil Map Unit Name: Pacolet Sandy Clay Loam (PcE2) **NWI classification:** Upland

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

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ No ○

Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **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 ○	No ◉	
Hydric Soil Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks:

Data point taken outside the edge of Wetland J.

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ 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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ 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)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ○	No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):	**Wetland Hydrology Present?** Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology indicators were not observed.

VEGETATION (Five/Four Strata)- Use scientific names of plants.

Sampling Point: WET J-UP

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30-ft.)				
1. Liriodendron tulipifera	0	☐	0.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
	0	= Total Cover		
Sapling-Sapling/Shrub Stratum (Plot size: 15-ft.)				
1. Fagus grandifolia	20	☑	100.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	20	= Total Cover		
Shrub Stratum (Plot size: 15-ft.)				
1. Ilex opaca	10	☑	100.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
	10	= Total Cover		
Herb Stratum (Plot size: 5-ft.)				
1. Polystichum acrostichoides	30	☑	100.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
11.	0	☐	0.0%	
12.	0	☐	0.0%	
	30	= Total Cover		
Woody Vine Stratum (Plot size: 30-ft.)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (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	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	60	x 4 =	240	
UPL species	0	x 5 =	0	
Column Totals:	60	(A)	240	(B)

Prevalence Index = B/A = 4.000

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Definition of Vegetation Strata:

Four Vegetation Strata:

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

Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – Consists of all woody vines greater than 3.28 ft in height.

Five Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vines – Consists of all woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not observed.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: WET J-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type [1]	Loc²	Texture	Remarks
1-20	10YR	5/4	100						Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ²Location: PL=Pore Lining. M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147,148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147,148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators 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 ◉

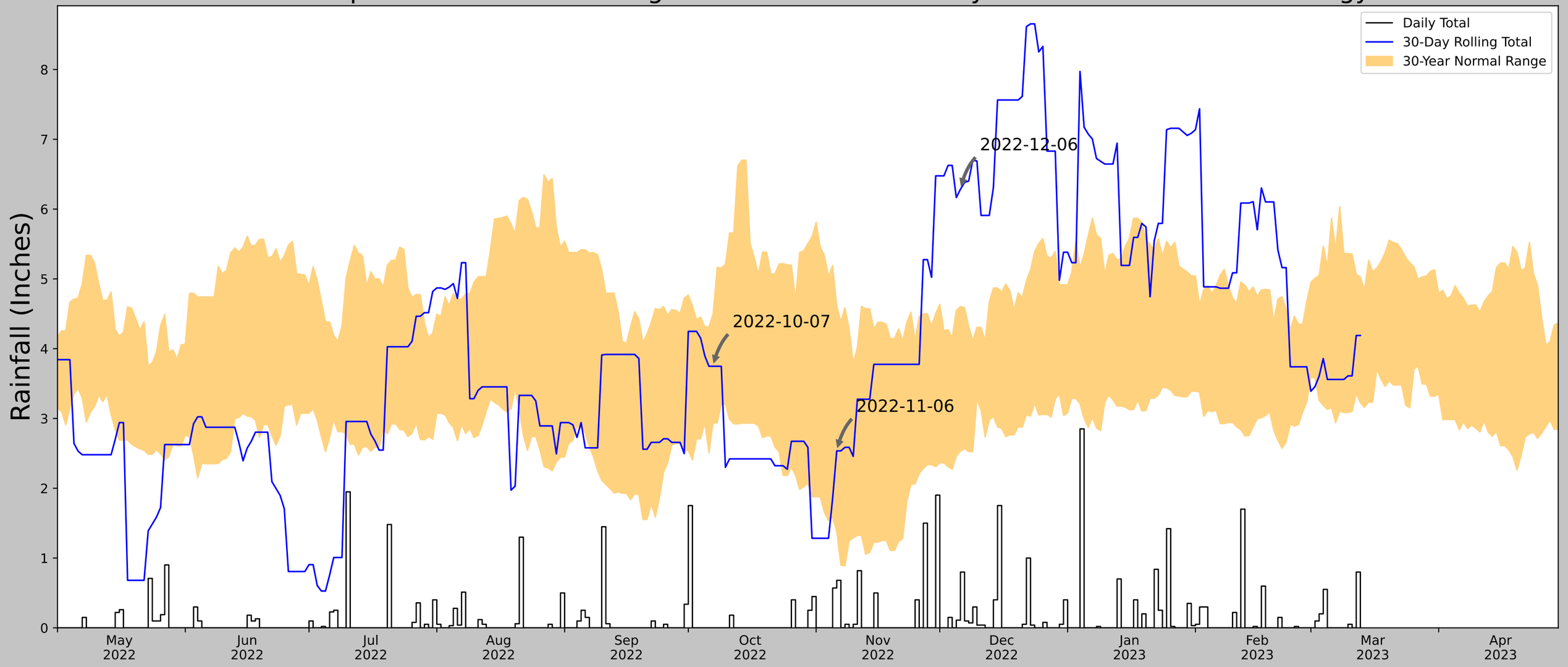
Remarks:

Hydric soil indicators were not observed.

Appendix E

Antecedent Precipitation Tool

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	34.9370, -81.7681
Observation Date	2022-12-06
Elevation (ft)	623.146
Drought Index (PDSI)	Not available
WebWIMP H_2O Balance	Wet Season

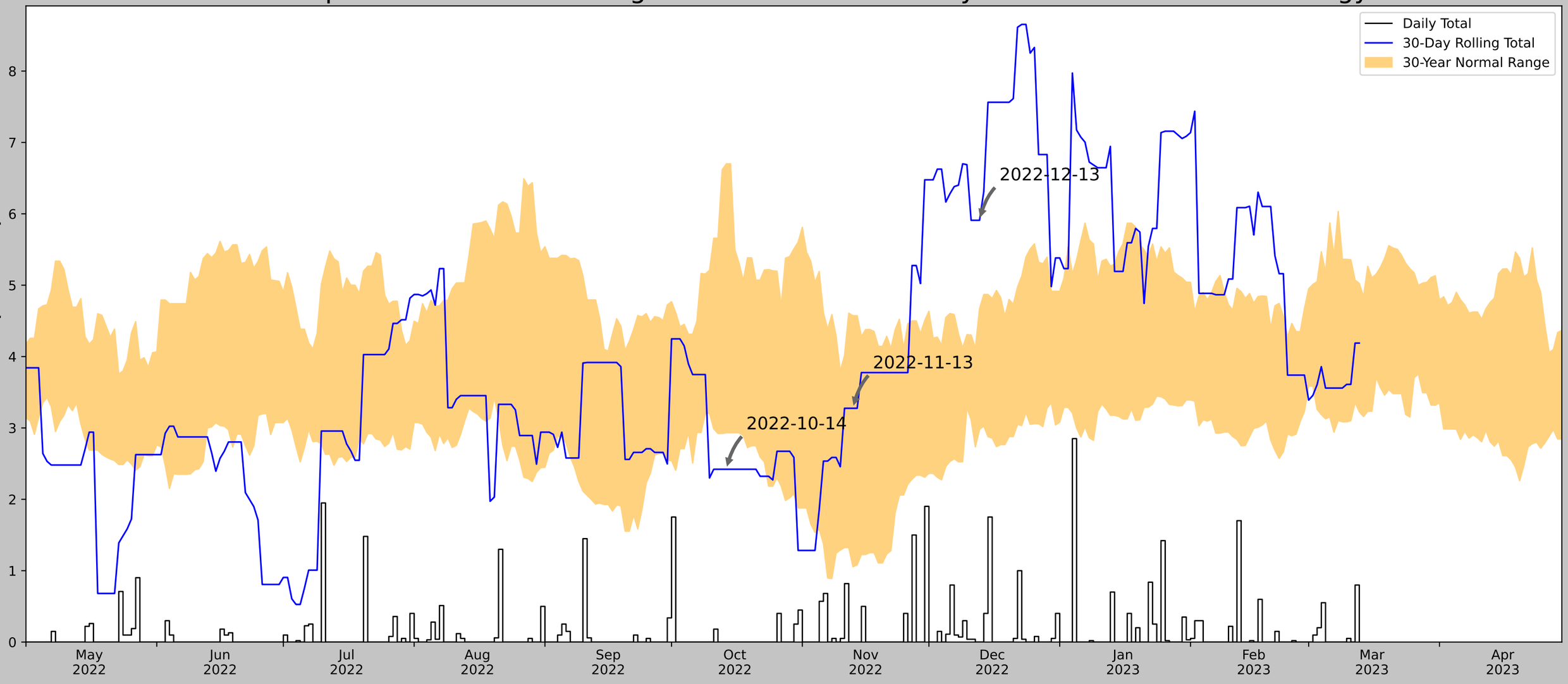
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-12-06	2.531102	4.603543	6.283465	Wet	3	3	9
2022-11-06	1.378347	4.614961	2.535433	Normal	2	2	4
2022-10-07	2.935827	4.495276	3.748032	Normal	2	1	2
Result							Wetter than Normal - 15

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SPARTANBURG 3 SSE	34.9078, -81.9139	609.908	8.503	13.238	3.939	11295	90
SPARTANBURG 3.4 ESE	34.9178, -81.8788	709.974	2.105	100.066	1.158	6	0
SPARTANBURG 3.7 SE	34.9134, -81.8748	683.071	2.249	73.163	1.177	12	0
SPARTANBURG 0.9 E	34.9462, -81.9129	784.121	2.654	174.213	1.657	22	0
SPARTANBURG 3.4 ENE	34.9572, -81.8704	702.1	4.21	92.192	2.283	10	0
SPARTANBURG 2.6 ENE	34.9627, -81.888	755.906	4.067	145.998	2.424	2	0
ROEBUCK 4.1 W	34.8852, -82.0361	698.163	7.099	88.255	3.821	3	0
SPARTANBURG 5.1 WSW	34.9304, -82.0189	829.068	6.15	219.16	4.115	1	0
CHESNEE 7 WSW	35.1108, -81.9675	748.032	14.35	138.124	8.44	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	34.9370, -81.7681
Observation Date	2022-12-13
Elevation (ft)	623.146
Drought Index (PDSI)	Not available
WebWIMP H_2O Balance	Wet Season

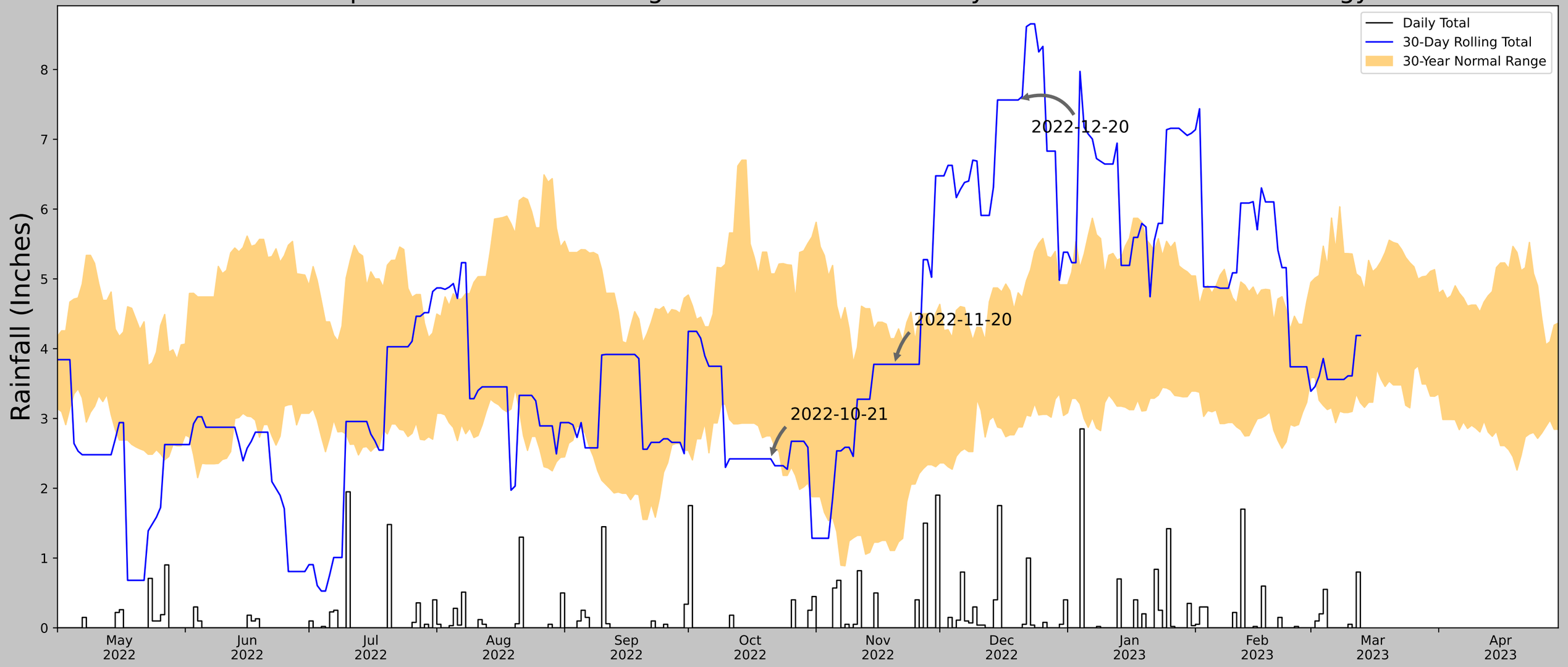
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-12-13	2.977559	4.671654	5.909449	Wet	3	3	9
2022-11-13	1.054724	4.572441	3.275591	Normal	2	2	4
2022-10-14	2.932284	6.701575	2.42126	Dry	1	1	1
Result							Normal Conditions - 14

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SPARTANBURG 3 SSE	34.9078, -81.9139	609.908	8.503	13.238	3.939	11295	90
SPARTANBURG 3.4 ESE	34.9178, -81.8788	709.974	2.105	100.066	1.158	6	0
SPARTANBURG 3.7 SE	34.9134, -81.8748	683.071	2.249	73.163	1.177	12	0
SPARTANBURG 0.9 E	34.9462, -81.9129	784.121	2.654	174.213	1.657	22	0
SPARTANBURG 3.4 ENE	34.9572, -81.8704	702.1	4.21	92.192	2.283	10	0
SPARTANBURG 2.6 ENE	34.9627, -81.888	755.906	4.067	145.998	2.424	2	0
ROEBUCK 4.1 W	34.8852, -82.0361	698.163	7.099	88.255	3.821	3	0
SPARTANBURG 5.1 WSW	34.9304, -82.0189	829.068	6.15	219.16	4.115	1	0
CHESNEE 7 WSW	35.1108, -81.9675	748.032	14.35	138.124	8.44	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	34.9370, -81.7681
Observation Date	2022-12-20
Elevation (ft)	623.146
Drought Index (PDSI)	Not available
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-12-20	2.877953	4.8	7.562992	Wet	3	3	9
2022-11-20	1.108661	4.143307	3.775591	Normal	2	2	4
2022-10-21	2.750394	5.072047	2.42126	Dry	1	1	1
Result							Normal Conditions - 14

Figure and tables made by the
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Version 1.0

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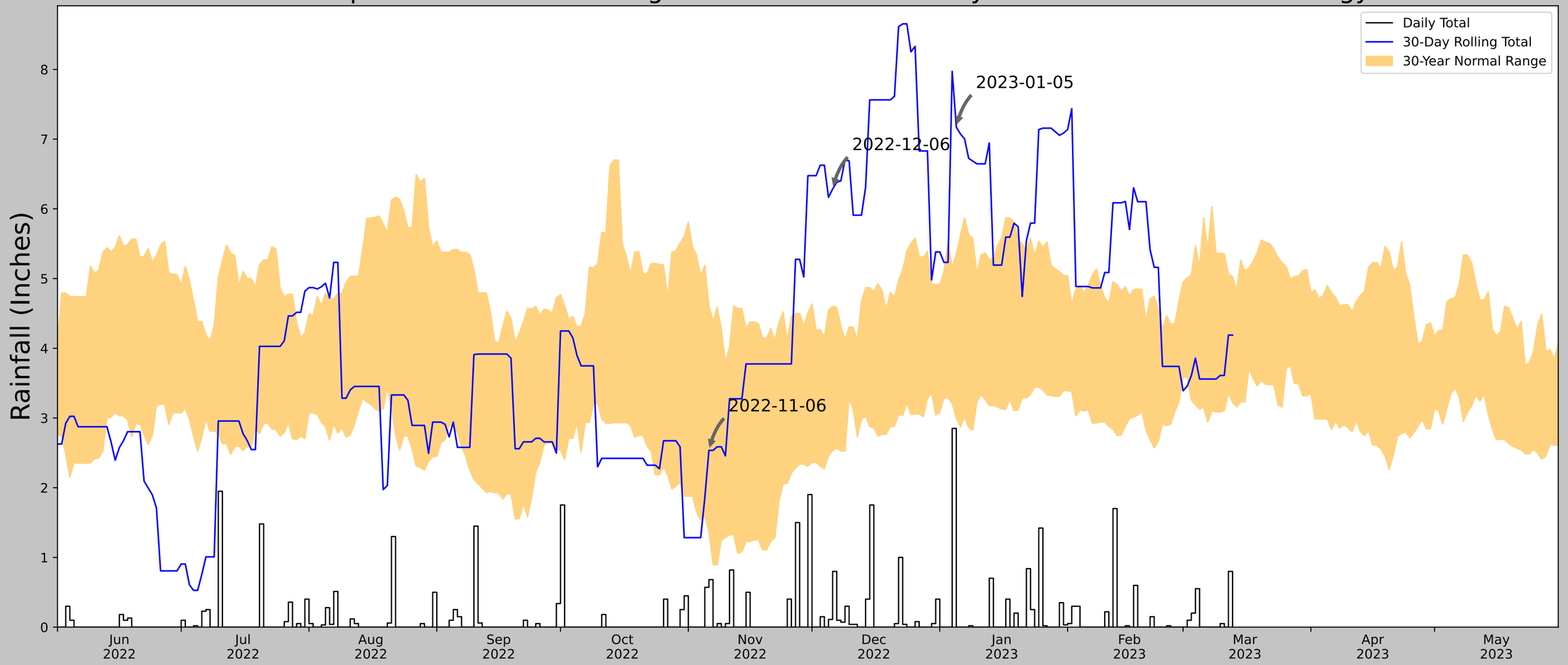
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SPARTANBURG 3 SSE	34.9078, -81.9139	609.908	8.503	13.238	3.939	11295	90
SPARTANBURG 3.4 ESE	34.9178, -81.8788	709.974	2.105	100.066	1.158	6	0
SPARTANBURG 3.7 SE	34.9134, -81.8748	683.071	2.249	73.163	1.177	12	0
SPARTANBURG 0.9 E	34.9462, -81.9129	784.121	2.654	174.213	1.657	22	0
SPARTANBURG 3.4 ENE	34.9572, -81.8704	702.1	4.21	92.192	2.283	10	0
SPARTANBURG 2.6 ENE	34.9627, -81.888	755.906	4.067	145.998	2.424	2	0
ROEBUCK 4.1 W	34.8852, -82.0361	698.163	7.099	88.255	3.821	3	0
SPARTANBURG 5.1 WSW	34.9304, -82.0189	829.068	6.15	219.16	4.115	1	0
CHESNEE 7 WSW	35.1108, -81.9675	748.032	14.35	138.124	8.44	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	34.9370, -81.7681
Observation Date	2023-01-05
Elevation (ft)	623.146
Drought Index (PDSI)	Not available
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-01-05	2.99685	5.354331	7.173229	Wet	3	3	9
2022-12-06	2.531102	4.603543	6.283465	Wet	3	2	6
2022-11-06	1.378347	4.614961	2.535433	Normal	2	1	2
Result							Wetter than Normal - 17

Figure and tables made by the
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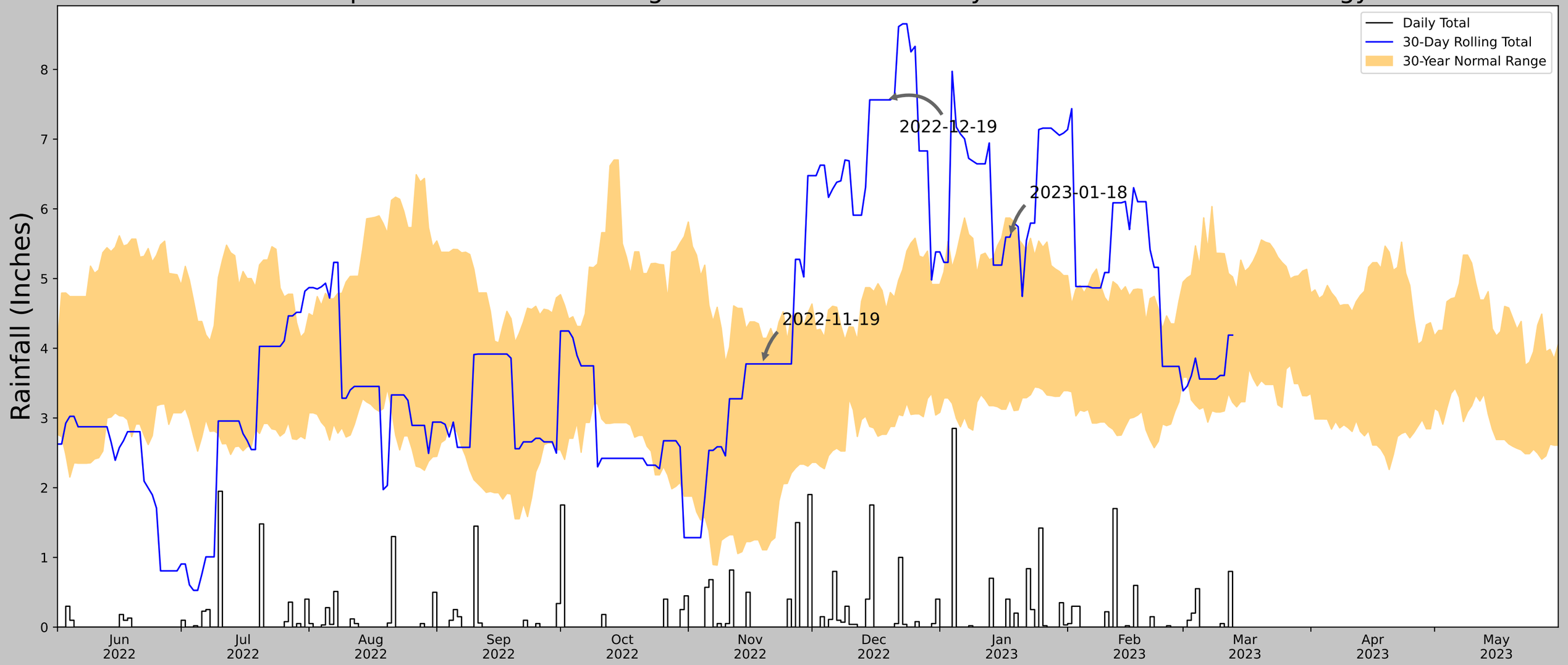
Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SPARTANBURG 3 SSE	34.9078, -81.9139	609.908	8.503	13.238	3.939	11295	90
SPARTANBURG 3.4 ESE	34.9178, -81.8788	709.974	2.105	100.066	1.158	6	0
SPARTANBURG 3.7 SE	34.9134, -81.8748	683.071	2.249	73.163	1.177	12	0
SPARTANBURG 0.9 E	34.9462, -81.9129	784.121	2.654	174.213	1.657	22	0
SPARTANBURG 3.4 ENE	34.9572, -81.8704	702.1	4.21	92.192	2.283	10	0
SPARTANBURG 2.6 ENE	34.9627, -81.888	755.906	4.067	145.998	2.424	2	0
ROEBUCK 4.1 W	34.8852, -82.0361	698.163	7.099	88.255	3.821	3	0
SPARTANBURG 5.1 WSW	34.9304, -82.0189	829.068	6.15	219.16	4.115	1	0
CHESNEE 7 WSW	35.1108, -81.9675	748.032	14.35	138.124	8.44	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	34.9370, -81.7681
Observation Date	2023-01-18
Elevation (ft)	623.146
Drought Index (PDSI)	Not available
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-01-18	3.266142	5.868898	5.594488	Normal	2	3	6
2022-12-19	2.765748	4.562599	7.562992	Wet	3	2	6
2022-11-19	1.108661	4.143307	3.775591	Normal	2	1	2
Result							Normal Conditions - 14

Figure and tables made by the
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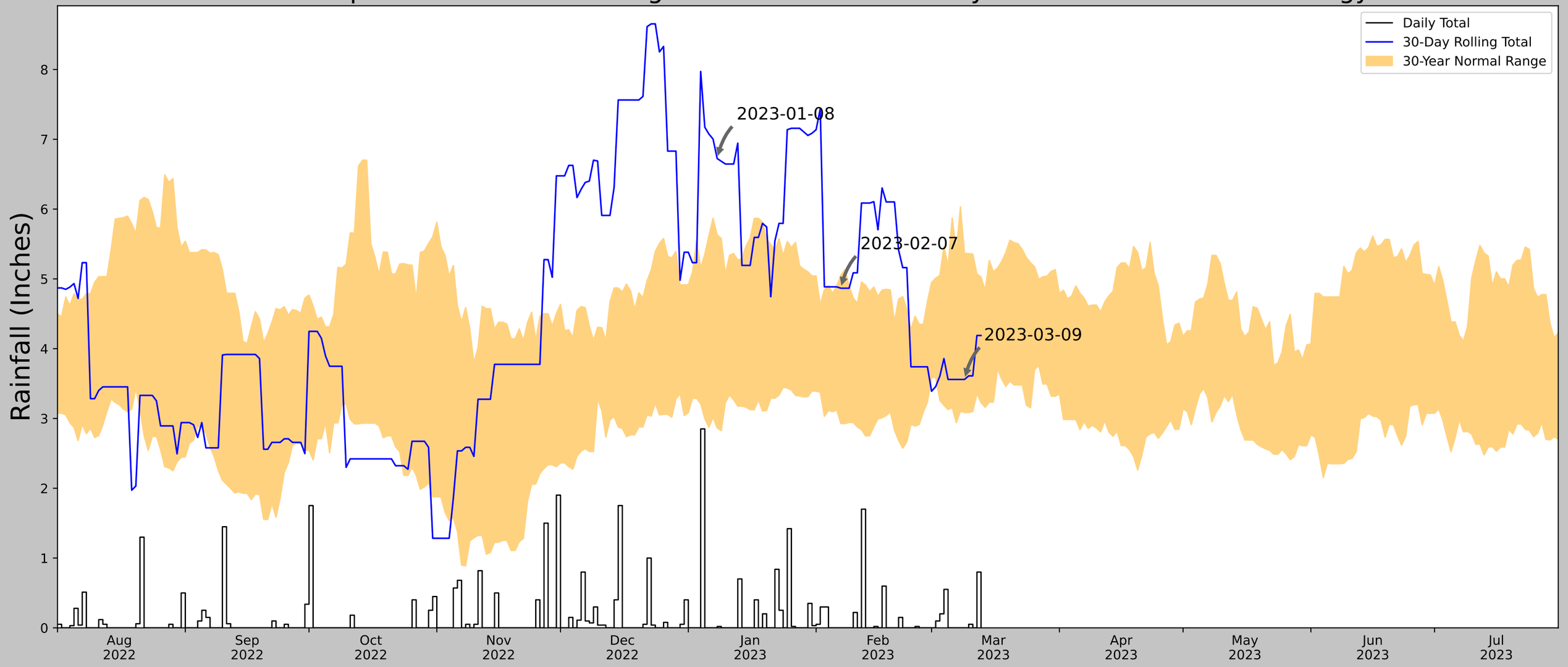
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SPARTANBURG 3 SSE	34.9078, -81.9139	609.908	8.503	13.238	3.939	11295	90
SPARTANBURG 3.4 ESE	34.9178, -81.8788	709.974	2.105	100.066	1.158	6	0
SPARTANBURG 3.7 SE	34.9134, -81.8748	683.071	2.249	73.163	1.177	12	0
SPARTANBURG 0.9 E	34.9462, -81.9129	784.121	2.654	174.213	1.657	22	0
SPARTANBURG 3.4 ENE	34.9572, -81.8704	702.1	4.21	92.192	2.283	10	0
SPARTANBURG 2.6 ENE	34.9627, -81.888	755.906	4.067	145.998	2.424	2	0
ROEBUCK 4.1 W	34.8852, -82.0361	698.163	7.099	88.255	3.821	3	0
SPARTANBURG 5.1 WSW	34.9304, -82.0189	829.068	6.15	219.16	4.115	1	0
CHESNEE 7 WSW	35.1108, -81.9675	748.032	14.35	138.124	8.44	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	34.9370, -81.7681
Observation Date	2023-03-09
Elevation (ft)	623.146
Drought Index (PDSI)	Not available
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-03-09	3.085039	5.36378	3.559055	Normal	2	3	6
2023-02-07	2.926772	5.053543	4.866142	Normal	2	2	4
2023-01-08	2.862992	5.632284	6.72441	Wet	3	1	3
Result							Normal Conditions - 13

Figure and tables made by the
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U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SPARTANBURG 3 SSE	34.9078, -81.9139	609.908	8.503	13.238	3.939	11295	90
SPARTANBURG 3.4 ESE	34.9178, -81.8788	709.974	2.105	100.066	1.158	6	0
SPARTANBURG 3.7 SE	34.9134, -81.8748	683.071	2.249	73.163	1.177	12	0
SPARTANBURG 0.9 E	34.9462, -81.9129	784.121	2.654	174.213	1.657	22	0
SPARTANBURG 3.4 ENE	34.9572, -81.8704	702.1	4.21	92.192	2.283	10	0
SPARTANBURG 2.6 ENE	34.9627, -81.888	755.906	4.067	145.998	2.424	2	0
ROEBUCK 4.1 W	34.8852, -82.0361	698.163	7.099	88.255	3.821	3	0
SPARTANBURG 5.1 WSW	34.9304, -82.0189	829.068	6.15	219.16	4.115	1	0
CHESNEE 7 WSW	35.1108, -81.9675	748.032	14.35	138.124	8.44	2	0