DRAFT Environmental Assessment

Office of Manufacturing and Energy Supply Chains and Office of Energy Efficiency and Renewable Energy

Energy Grant Opportunity – Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing (DE-FOA-0002678)

November 2024

DE-MS0000008 Bipartisan Infrastructure Law (BIL) Battery Grade PVDF Manufacturing Facility

DOE/EA-2237D

Prepared for:

U.S. Department of Energy
National Energy Technology Laboratory

Prepared by:

TRC

Draft Environmental Assessment

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Acronyms and Abbreviations

Notation	Description
AJD	Approved Jurisdictional Determination
AOI	Area of Interest
APE	Area of Potential Effect
BIL	Bipartisan Infrastructure Law
BLS	Bureau of Labor Statistics
BMP	Best Management Practice
CAA	Clean Air Act
CEJST	Climate and Economic Justice Screening Tool
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH_4	Methane
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalents
CWA	Clean Water Act
DAC	Disadvantaged Communities
DNR	Department of Natural Resources
DOE	U.S. Department of Energy
EA	Environmental Assessment
EJ	Environmental Justice
EO	Executive Order
EPD	Environmental Protection Division
EV	Electric Vehicle
FOA	Funding Opportunity Announcement
FR	Federal Register
FTE	Full-Time Equivalent
GDOT	Georgia Department of Transportation
GHG	Greenhouse Gas
GIS	Geographic Information System
GNAHRGIS	Georgia Natural, Archaeological and Historic Resources GIS
HAP	Hazardous air pollutant
HSE	Health, Safety, and Environmental
IEA	International Energy Agency
IPaC	Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
km	Kilometer(s)
MGD	Million Gallons Per Day
MOU	Memorandum of Understanding

Notation	Description
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_2	Nitrogen dioxide
NRCS	Natural Resources Conservation Service
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSA	Noise Sensitive Area
NSR	New Source Review
OCPSF	Organic Chemicals, Plastics and Synthetic Fibers
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
PFAS	Per- and polyfluoroalkyl substances
PLC	Polymers of low concern
$PM_{2.5}$	Particulate matter smaller than 2.5 microns
PM_{10}	Particulate matter smaller than 10 microns
Project	The proposed construction of a chemical manufacturing facility for the production of polyvinylidene fluoride for use in electric vehicle batteries
Project Site	An 81-acre parcel east of Clanton Road, south of Tobacco Road, in Augusta, Richmond County, Georgia
PSD	Prevention of Significant Deterioration
PVDF	Polyvinylidene Fluoride
RCRA	Resource Conservation and Recovery Act
Sackett	U.S. Supreme Court Case *Sackett v. EPA*
SHPO	State Historic Preservation Office
SO_2	Sulfur dioxide
Syensqo	Solvay Specialty Polymers USA, LLC, a member of the Syensqo Group
SWPPP	Stormwater Pollution Prevention Plan
TAP	Toxic air pollutants
TMDL	Total Maximum Daily Load
U.S.C.	U.S. Code
UDP	Unanticipated Discovery Plan
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOCs	Volatile organic compounds
WOTUS	Waters of the United States

1.0 Introduction and Purpose and Need

1.1 Introduction

This Draft Environmental Assessment (EA) was prepared by the U.S. Department of Energy (DOE) – National Energy Technology Laboratory pursuant to the National Environmental Policy Act of 1969 (NEPA; Title 42, Section 4321 et. Seq., U.S. Code [U.S.C.]) and DOE's NEPA implementing procedures (Chapter 10, Part 1021, Code of Federal Regulations [CFR]) to evaluate the potential environmental and social impacts of DOE's proposed action to provide funding to Solvay Specialty Polymers USA, LLC (a member of the Syensqo Group, "Syensqo" in this document)[1], Syensqo's proposed project, and the No-Action Alternative. The purpose of this Draft EA is to provide the information needed to assess the potential environmental and social impacts associated with construction and operations of a proposed facility which would produce cathode battery materials at the factory scale in Augusta, Richmond County, Georgia. This Draft EA provides site-specific details of the proposed action and addresses potential impacts of proposed construction and operations across 14 relevant resource areas.

1.2 Background

The Office of Manufacturing and Energy Supply Chains, in collaboration with the Office of Energy Efficiency and Renewable Energy, issued Funding Opportunity Announcement (FOA) DE-FOA-0002678, under which FOA-awarded projects will be funded, in whole or in part, with funds appropriated by the Infrastructure Investment and Jobs Act (2021), also more commonly known as the Bipartisan Infrastructure Law (BIL).

DOE prepared an environmental synopsis to evaluate and compare potential environmental impacts for each proposal it deemed to be within the competitive range from proposals received in response to the FOA. The Department used the synopsis to evaluate appreciable differences in potential environmental impacts from those proposals. The synopsis included

1. a brief description of background information for the Funding Opportunity area of interest,
2. a general description of the proposals DOE received in response to the Funding Opportunity Announcement and deemed to be within the competitive range,
3. a summary of the assessment approach DOE used in the initial environmental review to evaluate potential environmental impacts associated with the proposals, and
4. a summary of environmental impacts that focused on potential differences among the proposals.

Appendix A contains a copy of the environmental synopsis for this project developed for DE-FOA-0002678 proposal submissions.

DOE initially selected 21 projects under twelve topic areas of interest and allocated cost-shared funding for project definition activities; all of the projects' federal funding is subject to the completion of project-specific NEPA reviews. DE-FOA-0002678 supports new, retrofitted, and

[1] In December 2023, Solvay SA spun off its specialty activities to a new company, Syensqo SA. Syensqo SA is the ultimate parent company of Solvay Specialty Polymers USA, LLC.

expanded commercial-scale domestic facilities to produce battery materials, processing, and recycling and manufacturing demonstrations.

The applications reviewed under this FOA were selected for negotiations in October 2022. Twelve topic areas of interest (AOIs) were included in the FOA and each AOI outlined project objectives that were specific to that AOI. The twelve AOIs were separated according to the BIL sections 40207(b)(3)(A) and 40207(c)(3)(A). AOIs 1–3 and 6–11 were directed to commercial-level projects. AOIs 4, 5, and 12 were directed to demonstration-level projects. The AOIs are detailed in Table 1.

Table 1. AOIs under DE-FOA-0002678

Areas of Interest	Title
Battery Material Processing Grants pursuant to Section 40207(b)(3)(A)	
1	Commercial-scale Production Plants for Domestic Separation of Critical Cathode Battery Materials from Domestic Feedstocks
2	Commercial-scale Domestic Production of Battery-Grade Graphite from Synthetic and Natural Feedstocks
3	Commercial-scale Domestic Separation and Production of Battery-grade Precursor Materials Open Topic
4	Demonstrations of Domestic Separation and Production of Battery-grade Materials from Unconventional Domestic Sources
5	Demonstrations of Innovative Separation Processing of Battery Materials Open Topic
Battery Component Manufacturing and Recycling Grants pursuant to Section 40207(c)(3)(A)	
6	Commercial-scale Domestic Battery Cell Manufacturing
7	Commercial-scale Domestic Battery Cathode Manufacturing
8	Commercial-scale Domestic Battery Separator Manufacturing
9	Commercial-scale Domestic Next Generation Silicon Anode Active Materials and Electrodes
10	Commercial-scale Domestic Battery Component Manufacturing Open Topic
11	Commercial-scale Domestic Battery Recycling and End-of-Life Infrastructure
12	Domestic Battery Cell and Component Manufacturing Demonstration Topic

DOE selected the project proposed by Syensqo under AOI-3 of DE-FOA-0002678 to support the development of a new battery materials manufacturing facility in Georgia (the proposed 'Project' or 'Facility'). DOE's proposed action is to award $178,218,568 of the Project's total award value of $516,735,964 in a cost-shared arrangement.

1.3 Purpose and Need for Department of Energy Action

The overall purpose and need for DOE action – pursuant to the Office of Manufacturing and Energy Supply Chains in collaboration with the Office of Energy Efficiency and Renewable Energy program and the funding opportunity under the BIL – is to accelerate the development of a resilient supply chain for high-capacity batteries by increasing investments in battery materials processing and battery manufacturing projects. BIL investments in the battery supply chain will include five main steps including (1) raw material production, (2) materials processing including material refinement and processing, (3) battery material/component manufacturing and cell fabrication, (4) battery pack and end-use product manufacturing, and (5) battery end-of-life and recycling.

DOE considers Syensqo's proposed Project and location to be one that can meet the focus of the BIL sections: a) creating and retaining good-paying jobs; b) supporting inclusive and supportive workforce development efforts to strengthen America's competitive advantage; c) ensuring that the United States has a viable battery materials processing industry to supply the North American battery supply chain; d) expanding the capabilities of the U.S. in advanced battery manufacturing; e) enhancing national security by reducing the reliance of the U.S. on foreign competitors for critical materials and technologies; f) enhancing the domestic processing capacity of minerals necessary for battery materials and advanced batteries; and g) ensuring that the U.S. has a viable domestic manufacturing and recycling capability to support and sustain a North American battery supply chain. The Project Site was selected due to its location in an existing industrial zone, its access to transportation infrastructure and public utilities, and its potential to have a positive economic impact on the regional and local community.

DOE intends to further this purpose and satisfy this need by providing financial assistance under cost-sharing arrangements to this and the other projects selected under DE-FOA-0002678. This and the other selected projects are needed to maximize the benefits of the clean energy transition as the nation works to curb the climate crisis. This Project would meet the objective of recruiting, training, and retaining a skilled workforce in communities that have lost jobs due to the displacements of fossil energy jobs. This Project would also meaningfully assist in the nation's economic recovery by creating manufacturing jobs in the U.S. in accordance with the objectives of the BIL.

1.4 National Environmental Policy Act and Related Procedures

This EA is prepared in accordance with NEPA, as amended (42 U.S.C. 4321), the President's Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 CFR 1500-1508, as of June 2024), and DOE's implementing procedures for compliance with NEPA (10 CFR 1021). This statute and the implementing regulations require that DOE, as a federal agency:

- Assess the environmental impacts of its proposed action;
- Identify any adverse environmental effects that cannot be avoided, should the proposed action be implemented;
- Propose mitigation measures for adverse environmental effects, if appropriate;
- Evaluate alternatives to the proposed action, including a no-action alternative; and

- Describe the cumulative impacts of the Proposed Action together with other past, present, and reasonably foreseeable future actions.

These provisions must be addressed before a final decision is made to proceed with a proposed federal action that has the potential to cause impacts on the human environment, including providing federal funding to a project. This EA is intended to meet DOE's regulatory requirements under NEPA and provide DOE with the information needed to make an informed decision about providing financial assistance. In accordance with the above regulations, this EA allows for public input into the federal decision-making process; provides federal decision-makers with an understanding of the potential environmental effects of their decisions before making these decisions; and documents the NEPA process.

1.5 Relevant Laws, Regulations, and Executive Orders

The proposed Project requires no federal approvals or funding triggering NEPA review other than the proposed DOE funding award under DE-FOA-0002678. The following laws, regulations, and executive orders have been considered in preparing this EA:

- Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (Executive Order [EO] 13985)
- Bald and Golden Eagle Protection Act
- Clean Air Act
- Clean Water Act (CWA)
- Comprehensive Environmental Response, Compensation, and Liability Act
- Endangered Species Act
- Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input (EO 13690)
- Executive Order on America's Supply Chains (EO 14017)
- Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (EO 12898)
- Floodplain Management (EO 11988)
- Migratory Bird Treaty Act
- Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) Effluent Guidelines and Standards (40 CFR Part 414)
- Pollution Prevention Act of 1990
- Protection of Wetlands (EO 11990)
- Resource Conservation and Recovery Act (RCRA)
- Tackling the Climate Crisis at Home and Abroad (EO 14008)
- Revitalizing Our Nation's Commitment to Environmental Justice for All (EO 14097)
- The Noise Control Act of 1972, as amended

1.6 Agency Consultation

DOE initiated consultation with the Georgia Historic Preservation Division, which serves as the State Historic Preservation Office (SHPO) under Section 106 of the National Historic Preservation Act (NHPA). The SHPO response letter is included in Appendix B. The SHPO determined that “the subject project, as proposed, will have no adverse effect to historic properties within its Area of Potential Effect (APE), as defined in 36 CFR Part 800.5(d)(1), due to the scope and location of the work, existing modern intrusions, and previous ground disturbance.”

1.7 Consultation with Tribal Nations

DOE initiated consultations with the Muscogee (Creek) Nation, the Eastern Shawnee Tribe of Oklahoma, the Coushatta Tribe of Louisiana, the Catawba Nation, and the Alabama Quassarte Tribal Town, through each Tribal Nation’s Tribal Historic Preservation Office. Response letters received are included in Appendix B of this EA.

1.8 Prior DOE Actions Within the Project Site

There have been no prior DOE actions within the Project Site.

2.0 Proposed Action and Alternatives

2.1 Department of Energy's Proposed Action

DOE proposes, through a grant awarded to Syensqo, to partially fund the construction of a chemical manufacturing facility for the production of polyvinylidene fluoride (PVDF) for use in electric vehicle (EV) batteries, adjacent to its existing industrial facility. The Project would support the anticipated growth of the EV and hybrid EV industries. DOE's proposed action is to award $178,218,568 of the Project's total award value of $516,735,964 in a cost-shared arrangement.

2.2 Syensqo's Proposed Project

Syensqo currently operates a polymer-manufacturing plant in Augusta, Richmond County, Georgia (visible in the top of Figure 2). The existing plant has been in operation since 1984 and has been operated by Syensqo's predecessor since 2001. It has undergone incremental expansions.

The proposed Project would involve the construction and operation of a chemical manufacturing facility for the production of PVDF through various chemical reactions and separations. PVDF is a highly non-reactive thermoplastic used in applications requiring the highest purity, as well as resistance to solvents, acids, and hydrocarbons. The new operations would provide material to be used by battery manufacturers to support the production of batteries for more than 5 million EV batteries per year at full capacity.

PVDF is a fluoropolymer that has been demonstrated to meet the "polymers of low concern" (PLC) criteria, and as such does not present notable concern for human health or the environment. PLC criteria were developed over time within regulatory frameworks around the world as an outcome of chemical hazard assessment processes, which identified physical–chemical properties of polymers that determine polymer bioavailability and thereby report a polymer's potential hazard. For example, many of the physicochemical properties, such as molecular weight, limit the ability of a polymer to cross the cell membrane and therefore limit its bioavailability (Korzeniowski et al., 2022; Kostal, 2016; Lipinski et al., 2001; U.S. Environmental Protection Agency [USEPA], 2012).

PVDF is part of the per- and polyfluoroalkyl substance (PFAS) family. PFAS are divided into two primary categories: non-polymers and polymers (Henry et al., 2018). Certain non-polymer PFAS substances, for example, short- and long-chain per- and polyfluoroalkyl carboxylic acids and sulfonic acids (fluorosurfactant processing aids), have received regulatory scrutiny recently due to their toxicity, as well as their persistence, potential to bioaccumulate, and/or mobility in the environment. Regulatory processes have been launched worldwide to address these concerns related to specific non-polymer PFAS.

The technology used to produce PVDF for this purpose incorporates two advancements that avoid pitfalls present in other PVDF technologies. First, the project does not use a fluorosurfactant to facilitate the polymerization. Second, the polymerization is not conducted as an emulsion but rather is conducted as a suspension, and suspension technology does not require the use of a surfactant to produce the PVDF product. Because the proposed Project will not use fluorosurfactant processing aids for the manufacture of PVDF, these non-polymer PFAS

should not be present in the proposed Project's emissions and discharges.[2] Potential emissions and discharges of other non-polymer PFAS, if any, such as unintended by-products formed during manufacturing, will be evaluated during the design of the Project and controlled, as appropriate, through installation of permitted pollution control devices. Additionally, the Project will undergo a rigorous permitting process and has been designed to comply with relevant and applicable regulations, including the USEPA's Pretreatment Standards for New Sources under the OCPSF Effluent Guidelines. As these regulations, standards, and guidelines evolve, the Project will be updated as necessary to remain in compliance.

The proposed Facility would be located on an approximately 81-acre parcel located east of Clanton Road, south of Tobacco Road, in Augusta, Richmond County, Georgia, adjacent to and south of Syensqo's existing facility (Figure 1). Approximately 15 acres of the Project Site was previously developed for industrial use by Weylchem as a chemical manufacturing facility. Based on a review of historical aerial imagery of the Project Site (e.g., Google, 2023), this facility was constructed circa 1977-1981 and decommissioned circa 2007-2011. The majority of the onsite trees had been clearcut in approximately late-2010. Between 2011 and 2013, most of the aboveground structures were removed or demolished. By 2016, only the concrete building pads of aboveground structures remained, and much of the previously developed area was undergoing secondary vegetation succession. Currently, most of the Project Site is wooded with a mixture of young second-growth evergreen and deciduous tree species. The Project Site is zoned Heavy Industrial and contains an existing rail spur. The Project Site is served by existing natural gas, water, and electric utilities, which would be upgraded to serve the proposed Facility.

Syensqo would redevelop the Project Site to support the PVDF manufacturing process. The proposed Project will generally include a primary process furnace and raw material purification towers; one primary building enclosing the main PVDF manufacturing plant; a recycled vapor treatment system comprising compression, liquefaction, and purification towers, monomer building and refrigeration unit; cooling tower and air compressors; a wastewater treatment equipment area; rail sidings; a large storage/laydown yard; and a stormwater management system, including stormwater pond. Steam and nitrogen required for the manufacturing process will be extended from Syensqo's existing facility. In addition, water and sewer services and employee parking will be provided by Syensqo's existing facility. These structures are shown in Figure 2.

2.3 Construction

Construction activities would begin with site preparation, including clearing and grading of approximately 76 acres of the parcel, including the previously developed area as well as a portion of the undeveloped area. Temporary construction facilities, such as unpaved access roads for construction equipment, staging and laydown areas, and construction-phase best management practices (BMPs) would be constructed first.

Early site preparation would be followed by civil engineering, including grading, fill placement and compaction, pouring of foundations, and installation of underground utilities (water and

[2] The Project will receive process water from the City of Augusta Utilities Department. Fluorinated surfactant processing aids including perfluorooctanoic acid, perfluorooctane sulfonic acid, and perfluorohexane sulfonate have been detected in the City's water (Augusta Utilities, 2023; Greater Augusta Utility District, 2023). Non-polymer PFAS present in the City water could thus be introduced into the Project's emissions and water discharges.

electric). This phase would be followed by the construction of the buildings/structures as listed above, followed by the installation of mechanical systems and process equipment. During this time, the existing railroad spur would be reconfigured to serve the Project. Construction activities once commenced are expected to take up to 24 months to complete. During the construction phase, the Project is expected to employ up to a peak of approximately 500 construction personnel. Approximately 15 truck trips and 35 light-vehicle trips per week are anticipated for construction deliveries.

2.4 Operations

Following construction, the Project's operational phase is anticipated to be approximately 30 years. During operations, the Project is expected to employ approximately 100 full-time equivalent (FTE) operations personnel, providing these personnel with benefits such as healthcare, workforce training, and other employer-funded benefits. Deliveries of feedstock and shipment of products would be by rail or truck. For those supplies that would be delivered by truck, Syensqo estimates that approximately 20 truck trips per week would be required. For outgoing product, Syensqo estimates that approximately 80 truck trips per week would be required. In addition, commuter vehicles would add approximately 1,000 light-vehicle trips per week. Railcars would also be used and would range from 10 to 15 railcars per week.

2.5 Project Benefits

The benefits of the proposed Project would include redevelopment and productive use of an unused industrial property as well as production of electrode binders, separator coatings, and electrolyte additives that help expand the performance and adoption of EV batteries. Electrification of mobile sources helps offset generation of greenhouse gases (GHG) from combustion of fossil fuels, particularly when the electricity is generated from non-fossil fuel sources such as wind, solar, nuclear, and hydroelectric. In addition to reduction of GHGs, criteria pollutant pollution (e.g., particulate

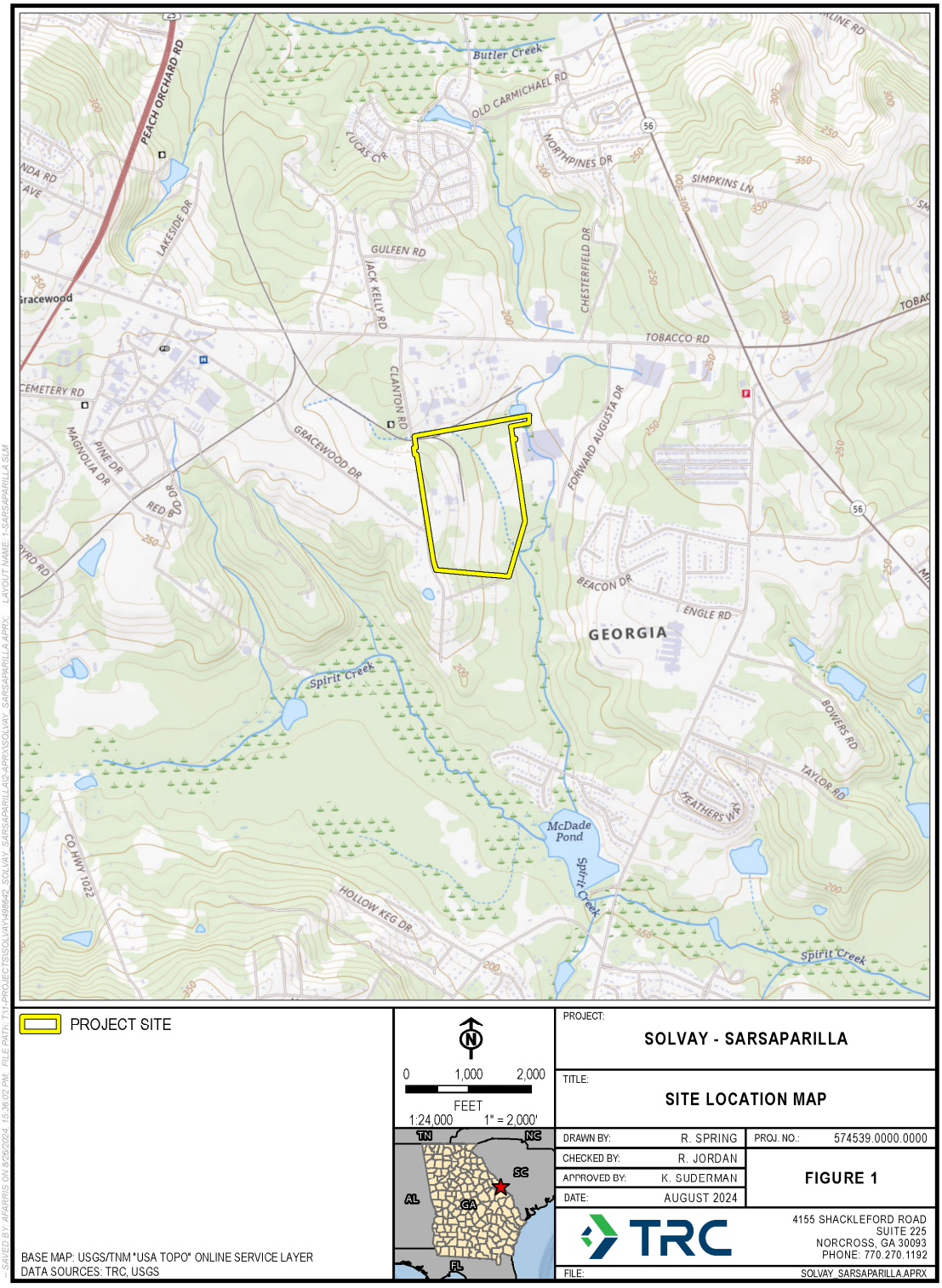

Figure 1. Site Location Map

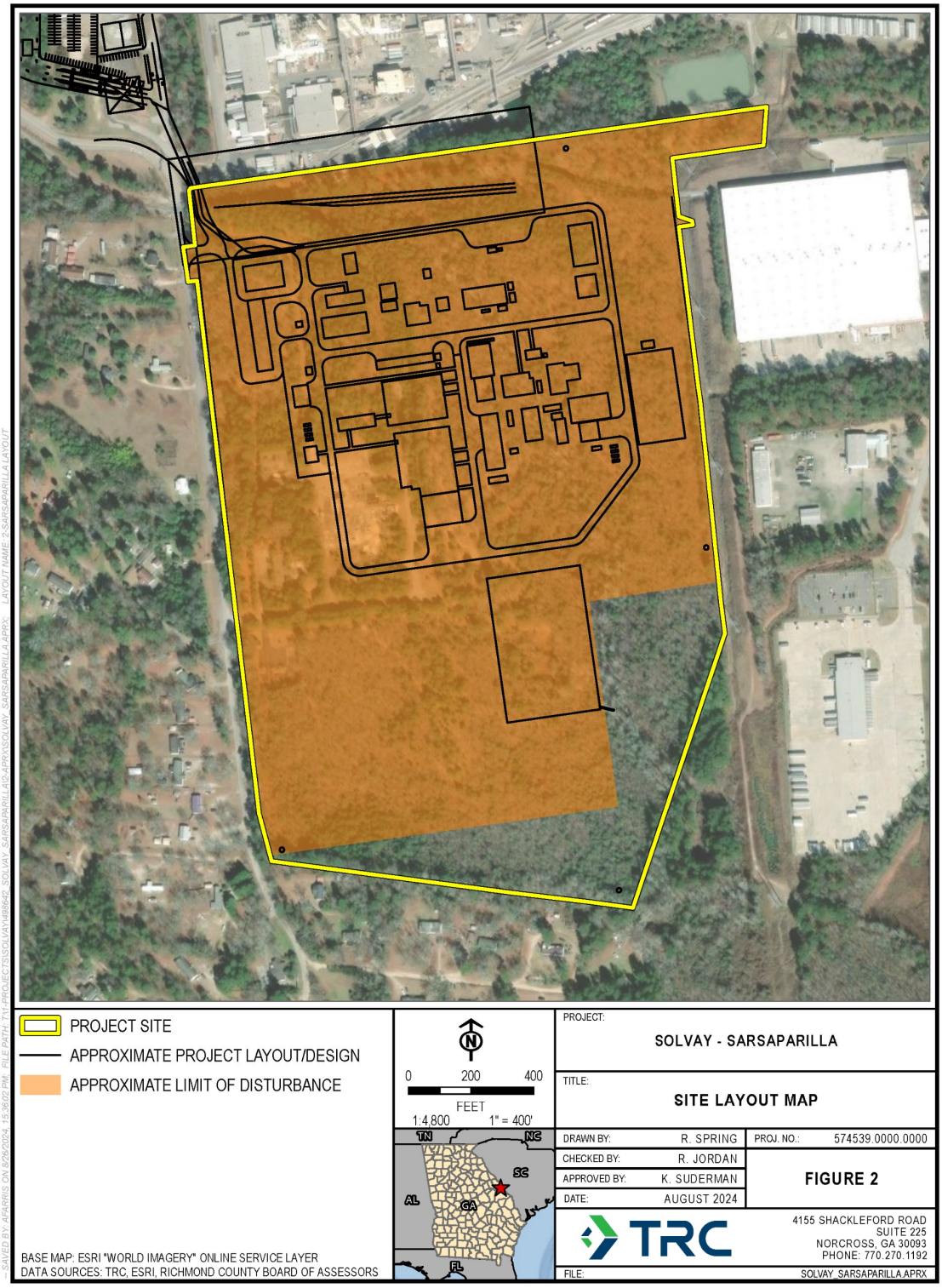

Figure 2. Site Layout Map

matter, nitrogen oxides, and sulfur dioxide) would be reduced by electrification of mobile sources.

2.6 Interim Actions and Categorical Exclusions

On August 16, 2023, DOE issued a Memorandum of Understanding (MOU, Appendix C) describing the allowable interim actions for the Project. DOE issued a second MOU on July 30, 2024, describing additional interim actions for the Project. In accordance with criteria established by the CEQ in its regulations implementing the procedural provisions of the NEPA (40 CFR Parts 1500-1508), DOE's NEPA implementing regulations (10 CFR Part 1021), which rely on those criteria, and DOE Order 451.1 B, *National Environmental Policy Act Compliance Program*, DOE has reviewed the *Environmental Questionnaire* submitted and found it acceptable to proceed with the following project tasks from Syensqo's Statement of Project Objectives (Table 2).

Table 2. Interim Actions

Task Number	Task Title	Nature of Task Activities
0.0	Project Management and Planning	• Develop and Maintain Project Management Plan
0.1	Kick-off Meeting	• Kick-off meeting with DOE within 30 days of project initiation
0.2	Project Controls	• Cost reporting/forecasting budget approved. • Progress measurement for Engineering, Procurement, and Construction phases
1.1	Front End Engineering and Design	• Complete Heat and Material Balance for design. Finalize P&IDs for design • Complete basis of Design report • Complete all Engineering
1.2	Risk Assessment	• Develop/Issue Environment Risk Assessment • Develop/Issue Process Risk Assessment
1.3	Baseline Cost and Schedule	• Develop/Issue Capital Cost Estimate • Definition for Project Controls
1.4	Engineering and Design Execution	• Conduct Design Reviews • Issue Front End Engineering Design • Design execution from GO status approval
1.5	Permitting Planning and Applications	• Air/Discharge Permit • Construction Building Permit Application • Other Environmental Permit Applications, if necessary
1.6	Critical Equipment Procurement	• Critical Equipment bids issued • Bid awards for Critical Equipment
2.1	Final Engineering & Design – Issued for Construction	• Subtask 2.1.1 – Civil, Structural, and Architectural IFC Drawings and Specifications

		• Subtask 2.1.2 – Mechanical IFC Drawings and Specifications • Subtask 2.1.3 – Electrical and Instrumentation IFC Drawings and Specifications • Subtask 2.1.4 – Fire Protection IFC Drawings and Specifications
2.2	Balance of Plant Equipment Procurement	• Subtask 2.2.1 – Balance of Plant Equipment Procurement • Subtask 2.2.2 – Electrical Gear Procurement • Subtask 2.2.3 – Instrumentation and Controls System Procurement
2.3	Field Construction Contractor Procurement	• Subtask 2.3.1 – Bid and Award Site Civil & Foundations Contract • Subtask 2.3.2 – Bid and Award Structural Steel Installation and Equipment Setting • Subtask 2.3.3 – Bid and Award Mechanical Piping Contract • Subtask 2.3.4 – Bid and Award Electrical & Instrumentation Contract • Subtask 2.3.5 – Bid and Award Fire Protection and Detection Contract

These tasks include administrative work, paper studies, analysis, permitting, planning, and laboratory-scale work at existing facilities. Construction, groundbreaking, land disturbances, or other related activities on the Project Site not noted above are not authorized under these interim action MOUs. Although the tasks discussed in Table 2 would take place prior to DOE's completion of the EA for the entire Project, DOE has determined that completing these tasks would not have an adverse environmental impact or limit the choice of reasonable alternatives for the Project.

2.7 Alternatives

DOE's alternatives to this Project consist of the numerous technically acceptable applications received in response to FOA DE-FOA-0002678. Before selection, DOE made preliminary determinations about the level of review under NEPA based on potentially significant impacts it identified during a review of technically acceptable applications. DOE conducted these preliminary reviews pursuant to 10 CFR 1021.216 and prepared a synopsis for projects under the FOA. These preliminary NEPA determinations and environmental reviews were provided to the selection official, who considered them during the selection process.

Because DOE's Proposed Action is limited to providing financial assistance in cost-sharing arrangements to projects submitted by applicants in response to a competitive funding opportunity, DOE's decision is limited to either accepting or rejecting a project as proposed by the proponent, including its proposed technology and selected site. DOE's consideration of reasonable alternatives is therefore limited to the technically acceptable application and a no-action alternative for each selected project.

2.8 No-Action Alternative

Under the No-Action Alternative, DOE would not provide funds for the proposed Project. Without DOE funding for the Project to be completed as proposed, the applicant would need to identify, obtain, and use an alternative source of funds equal to the amount of funding that the applicant would have received from DOE under the above-listed funding opportunity. The No-Action Alternative would therefore result in the Project being de-scoped or delayed while the applicant seeks other funding sources and would likely lead to cancellation of the Project, if sufficient funding is not obtained. The No-Action Alternative could result in the proposed Facility not being built. The impact would be a delay in bringing the polymer product to market. This delay would potentially result in the delay of battery production and the release of more GHG into the atmosphere from non-EVs during the delay. Further, this PVDF technology is an improvement over other production technologies that use fluorosurfactant process aids. Substitutes for PVDF may be available but are currently less resilient, untested, and involve similar production processes. DOE's ability to achieve its objectives under the BIL would be reduced.

To allow a comparison between the potential impacts of the Project as implemented and the impacts of not proceeding with the Project, for purposes of this environmental analysis, DOE assumes that the proposed Project would not likely proceed without DOE assistance. The baseline of potential impacts under the No-Action Alternative would be based on an assumption that the Project Site would not be developed. Despite that conservative approach for purposes of this EA, DOE recognizes that this Project might proceed if DOE decides not to provide financial assistance. If the Project does proceed without DOE's financial assistance, the potential impacts of the No-Action Alternative would be similar to those under DOE's proposed action (i.e., providing financial assistance that allows the Project to proceed), and incremental impacts associated with the proposed action would be reduced below the proposed action's effects presented in this EA.

2.9 Alternatives Considered by Syensqo

The Project Site was chosen as it is adjacent to Syensqo's existing, operating Augusta, Georgia, facility; is zoned Heavy Industry; and is in an area with rail, road, and utilities access. This site is bordered on the west and south by land that is zone R-MH, Residential, and Manufactured Home use. The southeastern corner of the site abuts an area zoned as R-1, One-Family Residential. The Augusta Richmond County Zoning Ordinance requires a minimum 50' setback of industrial activity from an R-Zone boundary. This requirement would be satisfied during facility design and local government approval.

An alternative location was considered, prior to the selection of the Project Site. The alternative location is adjacent to and west of Syensqo's existing, operating Augusta, Georgia, facility; zoned Heavy Industry; and in an area with rail, road, and utilities access. This alternative location had poorer rail access and less acreage, which presented challenges with construction logistics and potential for future expansion, if necessary. As discussed in Syensqo's Revised Environmental Information Volume, the existing environmental, cultural, and socioeconomic conditions at this alternative site were similar to those at the proposed site, and selection of the alternative site would not provide a significant environmental, cultural, or socioeconomic advantage to Syensqo's proposed site; therefore, it was not evaluated further.

2.10 Summary of Environmental Consequences

Table 3 provides a summary of the environmental, cultural, and socioeconomic impacts of the No-Action Alternative and the proposed action.

Table 3. Summary of Environmental, Cultural, and Socioeconomic Impacts

Impact Area	No-Action Alternative		Proposed Action	
	Construction	Operations	Construction	Operations
Community Services	Negligible	Negligible	Negligible	Negligible
Parks and Recreation	Negligible	Negligible	Negligible	Negligible
Aesthetics and Visual Resources	Negligible	Negligible	Negligible	Negligible
Land Use	Negligible	Negligible	Negligible	Negligible
Socioeconomics	Negligible	Negligible	Minor (beneficial)	Minor (beneficial)
Environmental Justice	Negligible	Negligible	Minor (beneficial)	Minor (beneficial)
Wetlands and Floodplains	Negligible	Negligible	Minor to Moderate	Negligible
Cultural Resources	Negligible	Negligible	Negligible	Negligible
Air Quality [1]	Negligible	Negligible	Minor	Minor
Greenhouse Gases [1]	Negligible	Negligible	Minor (beneficial)	Minor (beneficial)
Noise and Vibration	Negligible	Negligible	Negligible	Negligible
Geology, Topography, and Soils	Negligible	Negligible	Negligible	Negligible
Surface Water and Groundwater	Negligible	Negligible	Minor to Moderate	Low
Vegetation and Wildlife	Negligible	Negligible	Negligible	Negligible
Regulated Wastes (Solid and Hazardous Wastes)	Negligible	Negligible	Negligible	Negligible
Utilities and Energy Use	Negligible	Negligible	Negligible	Negligible
Transportation and Traffic	Negligible	Negligible	Minor	Minor
Public and Occupational Health and Safety	Negligible	Negligible	Negligible	Negligible

[1] The polymer production process is key to supporting the goals of vehicle power transformation from fossil fuels to non-fossil fuels. Without this plant, the number of EVs produced and cost would be adversely affected, ultimately resulting in higher emissions of GHG, criteria pollutants, and toxic air pollutants (TAPs).

3.0 Affected Environment and Environmental Consequences

Chapter 3 provides a description of the affected environment (existing conditions) at the site and a discussion of the environmental consequences of the No-Action Alternative and the proposed Project. Additionally, proposed best management practices are discussed where appropriate. A discussion of the potential for cumulative impacts is provided in Section 3.20, Cumulative Impacts. The methodology used to identify existing conditions and to evaluate potential impacts on the physical and human environment involved the following: review of the Environmental Questionnaires and Environmental Information Volume prepared by Syensqo, review of documentation provided by Syensqo; searches of various environmental databases; and agency consultation.

In the context of this EA, potential effects have been characterized according to their extent, duration, and magnitude according to the following definitions.

The potential extent of the Project impacts includes three levels:

- **Local** – Effects to resources in a proposed Project's immediate vicinity or surrounding area.
- **Regional** – Effects extending beyond a proposed Project's local level to resources in areas broadly defined by natural criteria, such as watersheds and ecosystems, or human activity, such as urban or rural population areas, or at a scale that could have interstate consequences.
- **National** – Effects extending beyond a proposed Project's regional level to resources on a nationwide scale or at a scale that could have cross-regional ecosystem, multi-state, or nationwide consequences.

The potential duration of the Project impacts includes four levels:

- **Temporary** – Effects occurring only during construction of the Project.
- **Short-term** – Effects likely to continue beyond the temporary timeframe but not likely to last more than several months.
- **Long-term** – Effects likely to continue beyond the short term, but not indefinitely.
- **Permanent** – Effects likely to last indefinitely or for the life of the Project.

The potential magnitude of Project impacts includes four levels:

- **Negligible** – Effects with minimal impact on a resource; any change that might occur would be barely perceptible and would not be easily measurable.
- **Minor** – Effects that would produce a detectable change to a resource but that would be unlikely to substantially alter its appearance or condition.
- **Moderate** – Effects that would produce a noticeable change to a resource and that may substantially alter its appearance or condition, but the integrity of the resource would remain intact.

- **Major** – Effects that would produce a highly noticeable and easily defined substantial impact or change to a resource that would measurably alter its appearance or condition, and potentially threaten the integrity of the resource.

3.1 No-Action Alternative—Environmental Consequences

As discussed above, to allow a conservative comparison between the potential impacts of the Project as implemented and the impacts of not proceeding with the Project, for purposes of this environmental analysis, DOE assumes that the proposed Project would not likely proceed without DOE assistance. The baseline of potential impacts under the No-Action Alternative, presented in Table 4, are based on an assumption that the Project Site would not be developed.

Table 4. Resource Impacts Under the No-Action Alternative

Resource Categories	Resource Impacts
Socioeconomics	There would be no socioeconomic changes, new employment opportunities, or impacts on local businesses.
Environmental Justice	There would be no effect on environmental justice communities.
Community Services	There would be no effect on community services.
Wetlands and Floodplains	No impacts would occur to the Project Site or nearby floodplains or wetlands.
Cultural Resources	There would be no impacts on cultural and/or paleontological resources or land uses.
Air Quality [1]	There would be no air emissions associated with proposed Project construction and no effect on existing air emissions.
Greenhouse Gases [1]	There would be no greenhouse gas emissions associated with proposed Project construction and no effect on the existing air emissions from operations.
Noise and Vibration	There would be no changes to background noise levels or the creation of new sources of noise.
Geology, Topography, and Soils	There would be no changes to the Project Site, nearby soils, or underlying geologic formations.
Surface Water and Groundwater	No impacts would occur to the Project Site or nearby surface waters and groundwater.
Vegetation and Wildlife	There would be no changes to the Project Site or nearby aquatic, wildlife, or vegetative resources.
Regulated Waste	There would be no increase in the generation of solid waste or hazardous waste from the site.
Utilities and Energy Use	Construction of utility infrastructure would not occur, and there would be no increase in consumption of water or electricity at the site. Additionally, there would be no increase in wastewater generation and supplemental wastewater treatment would not occur.
Transportation and Traffic	There would be no change in traffic or effects on transportation.

Resource Categories	Resource Impacts
Public and Occupational Health and Safety	There would be no increased potential for adverse impacts on public or employee health and safety from proposed Project construction, operation, or decommissioning.
Parks and Recreation	There would be no effect on parks or recreation.
Land Use	No impacts would occur to the Project Site or nearby land use.
Visual and Aesthetic Resources	No impacts would occur to the Project Site or nearby visual resources.

[1] The polymer production process is key to supporting the goals of vehicle power transformation from fossil fuels to non-fossil fuels. Without this plant, the number of EVs produced and/or cost would be adversely affected, ultimately resulting in higher emissions of GHG, criteria pollutants, and TAPs.

3.2 Socioeconomics

3.2.1 Affected Environment

The proposed Project would be located in Augusta-Richmond County, Georgia, a consolidated city-county on the Georgia-South Carolina border. The City of Augusta, Georgia, and Richmond County are together considered a census-designated city-county because of their consolidated government. The principal city of Augusta anchors the Augusta-Richmond County, GA-SC Metropolitan Statistical Area (MSA), [3]which is referred to as the "Socioeconomic Study Area" in this section. As defined by the Federal Office of Management and Budget, the MSA includes the counties presented in Table 5.

[3] An MSA consists of one or more counties that contain a city with a population of 50,000 or more. Counties containing the principal concentration of population- the largest city and surrounding densely settled area- are components of the MSA. Additional counties qualify to be included by meeting a specified level of commuting to the counties containing the population concentration and by meeting certain other requirements of metropolitan character.

Table 5. Population in Augusta-Richmond County, GA-SC MSA

County	2022 Population
Georgia Counties	
Augusta-Richmond County	205,772
Colombia County	154,274
Burke County	24,231
McDuffie County	21,727
Lincoln County	7,686
South Carolina Counties	
Aiken County	168,045
Edgefield County	25,938
Total MSA Population	**607,673**

Source: U.S. Census Bureau, 2023

The total populations of the seven-county MSA, as shown in Table 6, are estimated for 2022, the most recent year for which data are available. The population of the MSA constitutes a large labor pool from which qualified workers may be drawn.

The MSA's labor force and additional information from the U.S. Bureau of Labor Statistics (BLS) Local Area Unemployment Statistics Program are presented in Table 6.

Table 6. Labor Force in Augusta-Richmond County and County MSA

Civilian Labor Force August 2022	Augusta-Richmond County	Augusta-Richmond County MSA
Labor Force	82,037	261,467
Employment	78,230	251,351
Unemployment	3,807	10,116
Unemployment Rate	4.6%	3.9%

Source: BLS (2023a), Local Area Unemployment Statistics
Note: The civilian labor force data presented includes residents with wage and salary jobs, business owners, the self-employed, private household workers, and unpaid family workers.

The BLS Quarterly Census of Employment and Wages Program compiles industry-level detail on the wage and salary workers in the region (Table 7). These data do not include business owners, the self-employed, private household workers, or unpaid family workers. Thus, totals from this Program cannot be directly compared with the labor data presented in Table 6.

Table 7. Augusta-Richmond County and County MSA Labor Industries

High-Level Industry, Employees, 2022 Annual	Augusta-Richmond County	Augusta-Richmond County MSA
Total Covered Workers		
Goods-producing		
1011 Natural resources and mining	116	1,833
1012 Construction	3,243	16,124
1013 Manufacturing	8,255	24,590
Total, Goods-Producing	11,671	42,547
Service-producing		
1021 Trade, transportation, and utilities	16,733	40,004
1022 Information	1,144	1,845
1023 Financial activities	2,953	6,181
1024 Professional and business services	13,471	31,576
1025 Education and health services	20,464	34,545
1026 Leisure and hospitality	12,021	26,286
1027 Other services	2,497	5,869
1029 Unclassified	166	258
Total, Service-Producing	*69,449*	*146,784*
Total, Private Industry	*81,120*	*189,331*
Non-Private (Local, State, Federal) Industry	*22,475*	*40,047*
Total Industry	**103,595**	**229,378**

Source: BLS (2023b), Quarterly Census of Employment and Wages.
Notes:
Columns may not sum totals shown because of the suppression of data.
Excludes business owners, the self-employed, unpaid family workers, and private household workers.

MSA-level occupational employment data are available from BLS through the Occupational Employment and Wage Statistics Program. Data by major occupational groups are presented in Table 8.

Table 8. Augusta-Richmond MSA Occupational Employment

Occupation Code	Occupation	Employment, May 2021
11-0000	Management	11,970
13-0000	Business and Financial Operations	10,730
15-0000	Computer and Mathematical	3,980

Occupation Code	Occupation	Employment, May 2021
17-0000	Architecture and Engineering	5,380
19-0000	Life, Physical, and Social Science	2,260
21-0000	Community and Social Service	2,520
23-0000	Legal	1,070
25-0000	Educational Institution and Library	13,710
27-0000	Arts, Design, Entertainment, Sports, and Media	1,900
29-0000	Healthcare Practitioners and Technical	19,180
31-0000	Healthcare Support	9,130
33-0000	Protective Service	6,770
35-0000	Food Preparation and Service Related	20,730
37-0000	Building and Grounds Cleaning and Maintenance	6,530
39-0000	Personal Care and Service	3,660
41-0000	Sales and Related	20,100
43-0000	Office and Administrative Support	26,320
45-0000	Farming, Fishing, and Forestry	430
47-0000	Construction and Extraction	11,690
49-0000	Installation, Maintenance, and Repair	10,440
51-0000	Production	18,200
53-0000	Transportation and Material Moving	19,990
00-0000	All Occupations	226,670

Source: BLS (2023c), Occupational Employment and Wage Statistics.
Note: Excludes business owners, the self-employed, unpaid family workers, and private household workers.

President Biden established the Justice40 Initiative in Executive Order 14008, Tackling the Climate Crisis at Home and Abroad. Building on Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, the Justice40 Initiative established a goal that at least 40% of the benefits of certain Federal investments, including investments in clean energy, energy efficiency, and clean transit, flow to disadvantaged communities. To assist agencies with identifying disadvantaged communities, the CEQ developed the Climate and Economic Justice Screening Tool ((CEJST); CEQ, 2022),

which identifies census tracts as disadvantaged based on consideration of environmental and socioeconomic burdens.

Secretary Granholm published a letter to DOE Stakeholders on July 25, 2022, to inform them that “DOE intends to implement the Justice40 Initiative throughout all of its BIL efforts, wherever authorized by law, and within well-established DOE programs that fall within the climate and clean energy investment categories covered by Justice40.” (U.S. Department of Energy, 2023a). In follow-up documents, DOE has adopted eight policy priorities that govern the DOE’s implementation of the Justice40 Initiative.

1. Decrease energy burden in disadvantaged communities (DACs).
2. Decrease environmental exposure and burdens for DACs.
3. Increase parity in clean energy technology (e.g., solar, storage) access and adoption in DACs.
4. Increase access to low-cost capital in DACs.
5. Increase clean energy enterprise creation and contracting (Minority Business Enterprises/Disadvantaged Business Enterprises) in DACs.
6. Increase clean energy jobs, job pipeline, and job training for individuals from DACs.
7. Increase energy resiliency in DACs.
8. Increase energy democracy in DACs.

DOE concurrently published a list of DOE’s programs covered by the Justice40 Initiative because the programs incorporate investments that can benefit disadvantaged communities (Office of Management and Budget [OMB] Memorandum 21-28 (M-21-28)). Within the Manufacturing and Energy Supply Chains Office, DOE identified the Battery Manufacturing and Recycling Grants and the Battery Material Processing Grants programs as Justice40-covered programs (Section IIAii Clean Energy and Energy Efficiency within OMB M-21-28).

Additionally, DOE developed a DAC Reporter (DOE, 2023b) to define and identify disadvantaged communities for the purposes of DOE programs. The DAC Reporter identifies disadvantaged communities based on the cumulative burden the community faces from 36 burden indicators. The top 20 percent of communities within a state are designated as “disadvantaged,” and interested parties can use the DAC Reporter to generate community-specific reports that include the results for each of the 36 burden indicators. Nationwide, 13,581 communities have been identified as disadvantaged by the DAC Reporter.

The CEQ’s CEJST is intended to help Federal agencies ensure that the benefits of the nation’s climate, clean energy, and environmental programs reach DACs. This tool aims to identify communities that are marginalized, underserved, and overburdened by pollution. These DACs are in Census tracts that are at or above defined thresholds in one or more of eight categories of criteria.

CEJST uses 2019 American Community Survey data from the U.S. Census Bureau, along with boundary maps from the 2010 Decennial Census. The proposed Site is in a CEJST-identified DAC (Census tract 107.06, Richmond County). Tract 107.6 is at or above CEJST thresholds for Health, Housing, and Legacy Pollution. Census Tract 109.06, which is within one mile of the Project Site, is considered a DAC as well.

3.2.2 Environmental Consequences

3.2.2.1 Construction

Syensqo expects to employ up to 500 individuals during the construction stage. Under the proposed Project, local construction workers may be employed full time and taxes would continue to be paid on the property; therefore, no adverse economic impacts would occur. Construction workers employed for the construction period may be hired from the local population or from surrounding areas. Increased sales transactions for the purchase of materials and supplies would generate additional tax revenues for local and state governments, which would have a minor beneficial impact in Augusta-Richmond County. Secondary jobs related to increased economic activity stimulated by the proposed Project may be created, including additional retail and business employment, which may through a multiplier effect yield additional sales and income tax revenues for local and state governments, thereby also generating a minor beneficial impact.

3.2.2.2 Operations

The proposed Project would initially create approximately 100 new FTE jobs. Labor requirements for the Facility are not expected to change drastically as most jobs would be in advanced manufacturing operations, which is already represented in this region. No substantial influx in population is expected; therefore, the impacts on housing demand and population would be expected to be negligible.

3.2.3 Proposed Best Management Practices

No adverse impacts on socioeconomics are anticipated from the Project, so no mitigation is required or proposed.

3.3 Environmental Justice

3.3.1 Affected Environment

The “Environmental Justice (EJ) Study Area” is defined to include the U.S. Census-defined block groups wholly or partially within a one-mile buffer around the proposed Facility. The EJ Study Area is wholly contained within four block groups in Richmond County, Georgia. The proposed Facility is entirely located within host Census Block Group 2, Tract 107.06. Table 9 below summarizes the demographics for the block groups in the EJ Study Area. Each block group in the Study Area had a minority population greater than 50 percent, which indicates the presence of a potential EJ area. Each of the block groups has a lower percentage of individuals below the Federal Poverty Level than the County as a whole.

Table 9. EJ Areas in the EJ Study Area (1.0-mile buffer) [1]

Area	Total Population	Minority Population	Percent of Individuals below Federal Poverty Level	Disability[2]
Georgia	10,625,615	48.6%	13.9%	N/A
Richmond County	205,772	66.7%	22.1%	13.0%
BG 1, Tract 107.06	2,403	66.5%	16.9%	13.0%
BG 2, Tract 107.06 (host)	2,197	58.4%	11.5%	13.0%
BG 3, Tract 107.06	1,143	90.5%	12.5%	13.0%
BG 1, Tract 109.07	2,295	54.6%	3.4%	12.9%

Source: U.S. Census Bureau, 2023
Notes:
[1]Data cells marked in light grey meet a criterion for an EJ Area of Concern.
[2]Disability characteristics are only available at the Census tract level.

TRC also evaluated data on Census block groups within the EJ Study Area to identify those that exceed the federal Safe Harbor threshold of five percent for limited English proficiency households. A limited proficiency household is one in which no individual aged 14 years or older speaks English “very well” or better. That is, all members 14 years or older have at least some difficulties with English. This review of American Community Survey data indicated the host block group does not exceed the Safe Harbor threshold for limited English proficiency. Additional details on languages spoken are provided in Table 10.

Table 10. Households with Limited English Proficiency (1.0-mile buffer)

Area	Spanish Speaking	Other Indo-European Languages Speaking	Asian and Pacific Island Languages Speaking	Other Languages Speaking	Total
Georgia	1.6%	0.3%	0.7%	0.1%	2.7%
Richmond County	0.6%	0.3%	0.3%	0.1%	1.3%
BG 1, Tract 107.06	0.0%	0.0%	0.0%	0.0%	0.0%
BG 2, Tract 107.06 (host)	0.0%	0.0%	0.0%	0.0%	0.0%
BG 3, Tract 107.06	0.0%	0.0%	1.1%	0.0%	1.1%
BG 1, Tract 109.07	0.0%	0.0%	0.0%	0.0%	0.0%

Source: U.S. Census Bureau, 2023

Sensitive receptors are areas and facilities where the occupants are more susceptible to the adverse effects of exposure to toxic chemicals, pesticides, and other pollutants. Sensitive receptors include, but are not limited to, hospitals, schools, daycare facilities, parks and playgrounds, elderly housing, and convalescent facilities. Impacts to sensitive receptors would

be dependent on their proximity to the Facility and/or Facility access routes. Typically, sensitive receptors located further from the Site would experience less effects than those located closer to the Site. Sensitive receptors and their approximate distance from the Project Site are included in Table 11.

Table 11. Sensitive Receptors

Facility Type	Facility Name	Approximate Distance from Site
Schools	Cross Creek High School Gracewood Elementary School	0.4 mile 0.7 mile
Hospitals	East Central Regional Hospital	0.6 mile
Houses of Worship	Butlers Creek Church World Outreach Evangelistic Church Santidham Temple of Augusta	0.3 mile 0.5 mile 0.5 mile

Notes:
Sensitive-receptor identification is based on preliminary desktop analysis within a 1.0-mile buffer.
No parks, elder care, senior facilities, convalescence facilities, daycares, subsidized housing, or public housing have been identified within 1 mile of the facility.

3.3.2 Environmental Consequences

DOE's funding toward the proposed Project is consistent with the provisions of Executive Orders 12898 and 14008, aligns with DOE's eight Justice40 policy priorities, and advances the DOE's progress toward the goal established by the Justice40 Initiative that at least 40 percent of the benefits of certain types of Federal investment flow to DACs.

The proposed Project supports DOE's stated EJ policy priority to increase clean energy jobs, the job pipeline, and job training for individuals from disadvantaged communities. As discussed in Section 3.2, Socioeconomics, Syensqo expects to employ up to 500 individuals during the construction stage and create approximately 100 new FTE jobs during operation.

Syensqo expects to invest $1 million over the course of the Project to support education in both the Augusta community, which is designated as a DAC, and in the minority student populations at larger Georgia educational institutions.

The proposed Project is anticipated to provide positive short- and long-term benefits to disadvantaged communities in the local area, and therefore have a direct, beneficial long-term impact on environmental justice and equity.

3.3.3 Proposed Best Management Practices

No EJ impacts are anticipated, so no mitigation is required or proposed.

3.4 Community Services

3.4.1 Affected Environment

Community services pertinent to the proposed Project include schools, police, fire, and emergency medical support, all of which are provided for in Augusta:

- The nearest law enforcement headquarters is the Richmond County Sheriff's Office South Precinct, located approximately 1.8 miles from the site (Richmond County Sheriff's Office 2023).
- The closest fire station is the Augusta Fire Department Station 17, located approximately 0.7 mile east of the site (City of Augusta 2023a).
- The nearest emergency medical service provider is the Piedmont Prompt Care at Butler Creek, located approximately 1.5 miles northwest of the site (Piedmont Prompt Care 2023).

The Richmond County School System has twenty-six public elementary schools, eight public middle schools, eight public high schools, and fourteen alternative schools (Richmond County School System 2023). The nearest public schools include Cross Creek High School and Gracewood Elementary School (as shown in Table 11, above). Gracewood Elementary School is accessed from Gracewood Drive, and Cross Creek High School is accessed from Old Waynesboro Road. Cross Creek High School is separated from the proposed Facility by existing industrial development. The City of Augusta supports four higher education institutions. The nearest of these is Augusta Technical College, located approximately 3.7 miles northwest of the proposed Facility (www.augustatech.edu).

3.4.2 Environmental Consequences

Construction crews, as well as permanent new employees, are expected to be drawn from local and regional residents and not constitute a notable permanent migration of workers and their families to the region. The additional construction staff and operational staff are not anticipated to exert an undue burden on existing community services. In addition, road closures or other impacts that would restrict or impede the movement of emergency personnel or other traffic through the region are not anticipated as part of construction and operations activities associated with the proposed Project (see Section 3.15, Transportation and Traffic, for a discussion of transportation and traffic-related impacts).

The increased burden on existing police, fire, emergency medical, and other community services during construction and operations of the proposed Project is expected to be negligible.

Impacts to schools from construction or operation are not anticipated to be significant due to existing buildings/development or distance buffers separating the proposed Facility from the nearest school facilities. Both schools use roads that would not be directly affected by construction or operation of the proposed Facility. Noise from construction may be noticeable during the construction period at Cross Creek High School, but distance from the site, existing forest, and existing industrial development between the proposed Facility and the school are expected to help buffer noise impacts to acceptable levels (see Section 3.9, Noise and Vibration).

3.4.3 Proposed Best Management Practices

No significant or permanent adverse impacts on community services are anticipated, so no mitigation is required or proposed.

3.5 Wetlands and Floodplains

3.5.1 Affected Environment

3.5.1.1 Wetlands

A wetland and waterbody delineation of the Project Site was performed on November 30-December 1, 2023, to identify jurisdictional waters of the United States (WOTUS). This delineation was conducted in accordance with the guidelines of the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region, Version 2.0* (U.S. Army Corps of Engineers [USACE], 2010). The National Wetland Indicator status and taxonomic nomenclature for onsite plant species are referenced from the *2020 National Wetland Plant List Version 3.5* (USACE, 2020). The National Wetland Indicator status is based on the Atlantic and Gulf Coastal Plain, sub-region. Indicators of hydric soil are based on *Field Indicators of Hydric Soils in the U.S. Version 8.2* (U.S. Department of Agriculture [USDA] Natural Resources Conservation Service [NRCS] 2018). TRC classified wetlands and waterbodies based on the applicable 'pre-2015' regulatory regime. On September 8, 2023, USACE and the USEPA issued revised definitions for WOTUS to conform with the Supreme Court's decision in *Sackett v. EPA* ("*Sackett*"), decided on May 25, 2023. The decision in *Sackett* made certain provisions of the recent 2023 waters rule (88 Federal Register 3004) invalid. Due to ongoing litigation, the USACE Savannah district still operates under the pre-2015 framework. TRC collected field indicator information on all potential WOTUS features to support the analysis of the jurisdictional status of these features using the pre-2015 definition, as modified by *Sackett*.

The USACE issued an Approved Jurisdictional Determination (AJD) under project number SAS-2024-00200 on June 5, 2024. Figure 3 depicts the aquatic resources (i.e., wetlands and surface waters) within the Project Site, along with their USACE/USEPA-jurisdictional status. Table 12 below summarizes the wetland features identified within the Project Site. Surface waters are discussed in Section 3.11, Surface Water and Groundwater.

Table 12. Summary of Delineated Wetland Features

Feature ID	Feature Type	USACE/USEPA Jurisdictional (per AJD)?
Wetland 1	PFO/PSS	Yes
Wetland 2	PFO	No
Wetland 3	PFO	Yes
Wetland 4	PFO	Yes

PSS = Palustrine Scrub-Shrub Wetland
PFO = Palustrine Forested Wetland

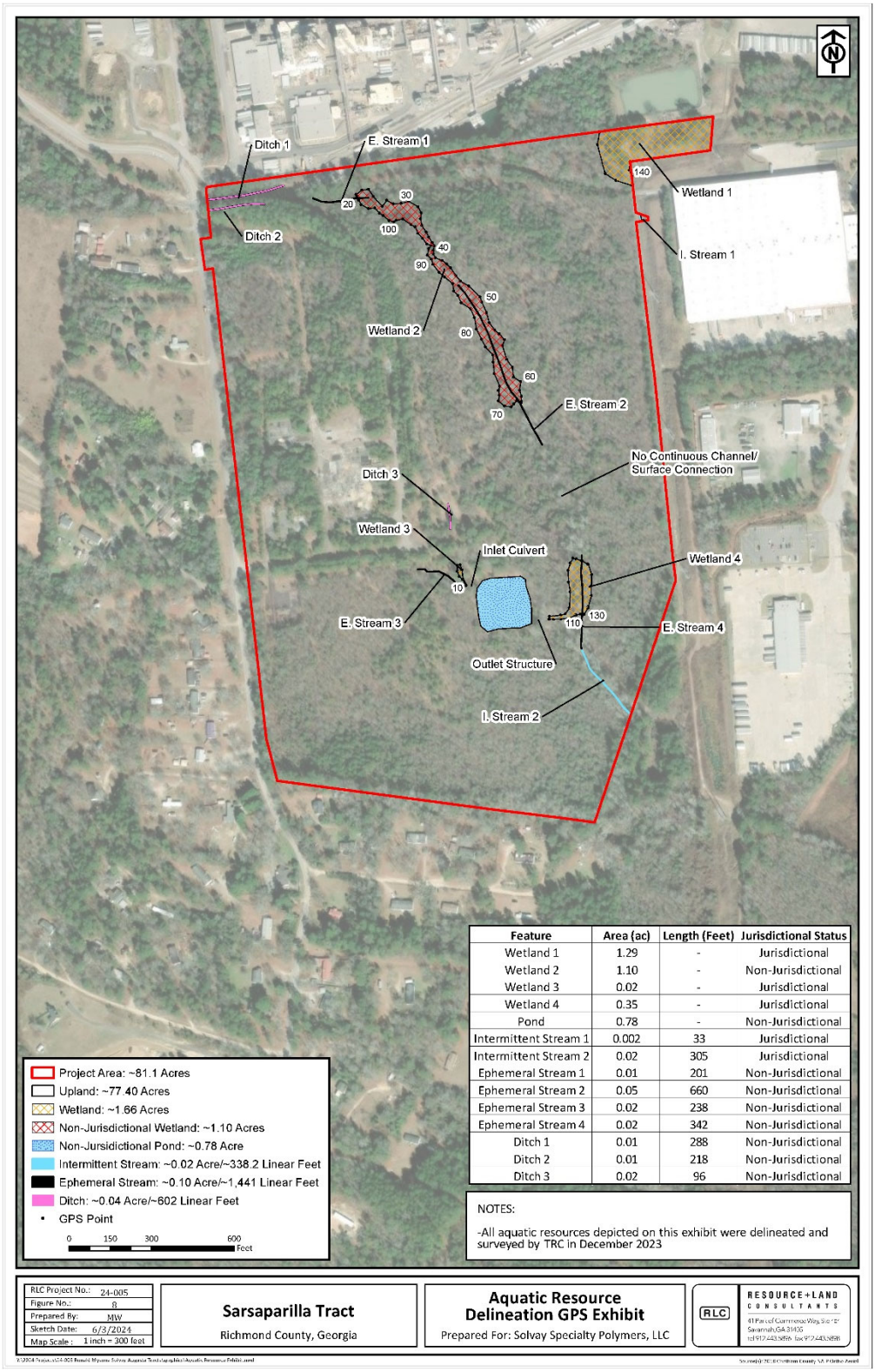

Figure 3. Aquatic Resource Delineation.

3.5.1.2 Floodplains

The Federal Emergency Management Agency Flood Hazard Map panel 13245C0210G (effective 11/15/2019) indicates that the entire Project Site is outside the 100-year floodplain.

3.5.2 Environmental Consequences

3.5.2.1 Wetlands

Construction

Impacts on wetlands from proposed Project construction are anticipated to be local, permanent, and minor. Construction would include the permanent fill of wetlands within the limits of development and the temporary localized fill and/or disturbance of wetlands within construction areas. However, the wetlands within the Project Site are similar to the extensive acreage of wetlands within this ecoregion, and the permanent and temporary impacts would be minor. The Project is eligible for authorization under Nationwide Permit No. 39 (NWP-39) and is currently under review by the USACE.

Operations

Operations of the proposed Project are not anticipated to create additional impacts on wetlands.

3.5.2.2 Floodplains

The Project lies outside the 100-year floodplain.

3.5.3 Proposed Best Management Practices

The USACE has determined that no compensatory wetland mitigation is required for the minor wetland impacts associated with the Project.

3.6 Cultural Resources

3.6.1 Affected Environment

For the purposes of the cultural resources evaluation, the study area is defined as all areas where ground disturbance might occur, as well as areas within a 1.0-kilometer (km) radius of the Project Site within which the Project would be visible, where visual effects on above-ground resources could occur. An examination of the Georgia Natural, Archaeological and Historic Resources Geographic Information System (GNAHRGIS) database (2023) was conducted to identify archaeological and historic resources that have previously been recorded and that are listed or eligible or may be eligible for the National Register of Historic Places (NRHP). Background research indicated there are no previously recorded archaeological sites within the boundaries of the Project Site and none within a 1-km radius.

Background review identified six historic structures within a 1-km radius of the Project Site (Table 13). All six structures are associated with the Gracewood State School and Hospital, now known as East Central Regional Hospital, Gracewood Campus. The Gracewood Campus was

formed in 1919 as a training school for individuals with mental disorders. The campus expanded in the 1920s by purchasing an adjacent orphanage. The campus expanded again in the 1950s to include surrounding farmland.

Most of the historic structures associated with the Gracewood Campus have been recorded, including the six identified in the table below. However, there has been no formal evaluation of the individual structures or the campus as a historic district. Three of the structures within 1 km of the Project Site were recorded as having characteristics that appear to meet the eligibility criteria for inclusion in the NRHP.

Table 13. Cultural Resources within a 1.0-km radius of the Project Site.

Resource No.	Description	Date	Nation Register Eligibility
55891	House/Georgian Cottage	1850	Appears to meet NRHP criteria
55892	House/Vernacular	1874	Unassessed
55893	House/Folk Victorian	1890	Appears to meet NRHP criteria
55894	House/Craftsman	1919	Appears to meet NRHP criteria
56068	Hay Barn	1955	Unassessed
56070	Storage Building	1945	Unassessed

In addition to GNAHRGIS, TRC examined the online property search maintained by the Augusta-Richmond County Board of Assessors to determine if there were any structures within or adjacent to the Project Site that are 50 years old or older. The search identified at least four homes within the vicinity of the Project that meet this threshold. These homes meet the age criterion for the NRHP but have not been evaluated as to their eligibility.

The proposed Project thus has the potential to affect resources that are eligible for the NRHP. A request was submitted to the Georgia Historic Preservation Division, which serves as the SHPO, to concur in the APE for Cultural Resources and recommended level of effort for a cultural resources survey that would satisfy the requirements detailed in the *Georgia Standards and Guidelines for Archaeological Investigations* (Georgia Council of Professional Archaeologists, 2019) and the *Georgia Historic Resources Survey Manual* (Georgia Department of Community Affairs, 2023).

3.6.1.1 SHPO Consultation

DOE initiated consultations with the SHPO under Section 106 of the NHPA. Response letters are included in Appendix B.

In a letter dated January 3, 2024 concurred with TRC's assessment that historic properties may be present within the Project's APE, however the SHPO has determined that "the subject project, as proposed, will have **no adverse effect** to historic properties within its APE, as defined in 36 CFR Part 800.5(d)(1), due to the scope and location of the work, existing modern intrusions, and previous ground disturbance."

SHPO indicates that any changes to the Project as proposed may require additional consultation. SHPO's response letter evidences compliance with Section 106 of the NHPA.

3.6.1.2 Fieldwork

SHPO's determination that there will be no adverse effects on historic properties within the APE indicates that neither an Archaeological Survey nor a Historic Structures Survey is required prior to the proposed undertaking.

3.6.2 Environmental Consequences

Based on consultation with the Georgia SHPO, the proposed Project would have no adverse effect on cultural resources.

3.6.3 Proposed Best Management Practices

To ensure that previously unrecorded archaeological resources would not be adversely affected by the construction of the proposed Project, Syensqo would implement a project-specific Unanticipated Discovery Plan (UDP). The UDP would identify the process to be followed in the event of a discovery of previously unknown cultural resources, such as human remains or deposits of archaeological artifacts, and would include roles and responsibilities during construction; reporting processes; stop-work requirements and authority; and directions for notification of company representatives, DOE representatives, local law enforcement, and tribal representatives, as appropriate. The UDP is attached as Appendix D.

3.7 Air Quality

Emissions associated with the proposed Project would be subject to federal and state regulatory requirements under the Clean Air Act (CAA) and Georgia Air Quality Rule 391-3-1. In addition to the federal regulations promulgated under the CAA, the Georgia Environmental Protection Division (EPD) regulates emissions at both the Facility level and unit levels. Georgia state regulations include requirements to obtain construction and operating permits for installation and operation of potential emissions sources. They also contain provisions for toxics air quality modeling. Syensqo intends to comply with all applicable regulations of the CAA and Georgia Rules for Air Quality Control.

The CAA requires that the USEPA promulgate National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. The USEPA has established NAAQS for the following criteria pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter smaller than 10 microns (PM_{10}), particulate matter smaller than 2.5 microns ($PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb). See Table 14.

Table 14. USEPA National Ambient Air Quality Standards

Pollutant		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide (CO)		primary	8 hours	9 ppm	Not to be exceeded more than once per year
			1 hour	35 ppm	
Lead (Pb)		primary and secondary	Rolling 3- month average	0.15 µg/m^3 (1)	Not to be exceeded
Nitrogen Dioxide (NO_2)		primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		primary and secondary	1 year	53 ppb (2)	Annual Mean
Ozone (O_3)		primary and secondary	8 hours	0.070 ppm (3)	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particle Pollution (PM)	$PM_{2.5}$	primary	1 year	12.0 µg/m^3	Annual mean, averaged over 3 years
		secondary	1 year	15.0 µg/m^3	Annual mean, averaged over 3 years
		primary and secondary	24 hours	35 µg/m^3	98th percentile, averaged over 3 years
	PM_{10}	primary and secondary	24 hours	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO_2)		primary	1 hour	75 ppb (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

Source: https://www.epa.gov/criteria-air-pollutants/naaqs-table
Notes:
ppm = parts per million; µg/m^3 = micrograms per cubic meter
[1]In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m^3 as a calendar quarter average) also remain in effect.
[2]The level of the annual NO_2 standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.
[3]Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O_3 standards are not revoked and remain in effect for designated areas. Additionally, some areas may have certain continuing implementation obligations under the prior revoked 1-hour (1979) and 8-hour (1997) O_3 standards.
[4]The previous SO_2 standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2) any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO_2 standards or is not meeting the requirements of a State Implementation Plan (SIP) call under the previous SO_2 standards (40 CFR 50.4(3)). A SIP call is a USEPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

O_3 is rarely emitted directly to the ambient air but is formed in the atmosphere by a photochemical reaction involving sunlight and precursor compounds. Emissions of nitrogen oxides (NOx) and volatile organic compounds (VOCs) are regulated because they are O_3 precursors. Richmond County has been designated by the USEPA as in Attainment or the equivalent for all NAAQS.

3.7.1 Affected Environment

Syensqo currently manufactures chemicals and high-performance polymers at the existing facility located in Augusta, Richmond County, Georgia. The Project would be situated immediately adjacent to the existing facility. The surrounding area is wooded with a mixture of evergreen and deciduous species. The nearest sensitive receptors (sources of human populations) include a church, several scattered residences, Cross Creek High School, and nearby residential areas, including the Butler Mobile Home Community, residences west of Clanton Road, and the Covington neighborhood.

The existing facility is currently a major source of air emissions with respect to the federal Title V permitting program because facility-wide potential emissions hazardous air pollutants (HAPs) exceed the applicable major source thresholds. However, the existing facility is a minor source under the federal New Source Review (NSR) program. The existing facility currently operates under Air Quality Part 70 Permit No. 2821-245-0126-V-06-0.

3.7.2 Environmental Consequences

Construction

Minor, temporary, and intermittent air emissions are anticipated during the anticipated up to 24-month Project construction period. These emissions could have a minor, short-term adverse impact on local air quality. The USEPA has explained (43 Federal Register [FR] 26395, June 19, 1978):

> Temporary sources are also exempt from full PSD review, since their ambient air impacts are short-lived. Temporary emissions include, but are not limited to, those from a pilot plant, portable facility, construction or exploration. Emissions occurring for less than 2 years at one location would generally be considered temporary. Emissions for longer periods of time might also be considered to be temporary (such as the emissions related to the construction of power plants or other large sources) but should be dealt with on a case-by-case basis.

Tailpipe emissions are anticipated from the equipment used to construct the proposed facilities, including during site grading and leveling, during construction, and through delivery of construction materials and supplies by road. This equipment would intermittently emit CO, NO_x, SO_2, PM_{10}, $PM_{2.5}$, VOC, and HAPs. As such, in addition to tailpipe emissions, surface soil disturbances during excavation and grading could result in generation of fugitive dust. Fugitive dust could potentially affect both public health and the environment. The severity of its effects on health depends on the size and composition of the particulate matter. Typical potential effects of prolonged exposure to high levels of fugitive dust are persistent coughs, respiratory distress, eye irritation, and asthma. Syensqo's construction contractor would implement best management practices to minimize generation of dust during construction activities.

Operations

The Syensqo Augusta facility operates under the USEPA Title V Air Permit. Syensqo has applied for a State Implementation Program permit and modification to its Title V permit to incorporate the Project. Table 15 summarizes the potential emissions of the current facility, the Project, and the current facility plus the Project. The site-wide emissions would be capped by permit such that the site would remain a minor source under NSR.

Table 15. Operating Emissions

Scenario	Potential Emissions (tons per year)					
	PM_{10}	$PM_{2.5}$	SO_2	CO	NO_x	VOC
Current Facility	23.4	23.4	<100[(1)]	<100[(1)]	<100[(1)]	<100[(1)]
Project	5.5	5.5	10.1	30.3	28.8	15.1
Current Facility + Project	28.9	28.9	<100[(1)]	<100[(1)]	<100[(1)]	<100[(1)]
NSR Major Source Threshold	100	100	100	100	100	100

[1]Site-wide emissions of SO_2, NO_x, CO, and VOC are capped at less than 100 tons per year.
PM_{10}/$PM_{2.5}$ = particulate matter less than 10 microns and 2.5 microns, respectively; SO_2 = sulfur dioxide CO = carbon monoxide; NOx = nitrogen oxides; VOC = Volatile Organic Compounds

As part of the permitting process, air toxics modeling was performed to demonstrate that the Project emissions would not endanger public health. The Georgia EPD maintains a list of nearly 500 compounds that are considered TAPs that would require a demonstration that the emissions of the compounds will not cause adverse ambient air impacts. Syensqo showed that the emissions of TAPs are either at levels that are so low on an annual basis that no further demonstration is required or prepared and submitted for review an air dispersion modeling analysis that predicts the maximum concentrations of TAPs on short- and long-term averages. These predicted concentrations are required to be less than the maximum allowable ambient concentrations developed by Georgia EPD. A facility may not receive a permit unless the Georgia EPD determines that the ambient air impacts are acceptable. The TAPs emitted from this Project and subject to air dispersion modeling include hydrogen chloride, hydrogen fluoride, chlorine, and fluorine. No modeled air pollutant had a predicted, worst-case impact of greater than 30% of the allowable standard and most were less than 5% of the allowable standard.

Furthermore, the USEPA has reviewed the risk of the chemical category to the surrounding communities and promulgated standards to protect health in August 2020 and published a reconsideration of this rule on April 4, 2024, with additional requirements. Syensqo's new and existing processes will be required to demonstrate compliance with these rules which establish that human health around these facilities will be protected with an ample margin of safety considering their site-specific operations.

3.7.3 Proposed Best Management Practices

Numerous best management practices related to air quality would be employed during construction and operation of the proposed Project. These include using dust suppressants and best management to minimize fugitive dust, using only low-sulfur fuels in construction

equipment to minimize the emissions of SO_2 and $PM_{2.5}$ precursors, and minimizing equipment idling during construction. Project operations would be conducted in accordance with Air Quality Part 70 Permit No. 2821-245-0126-V-06-0, which incorporates requirements of the Clean Air Act and state regulations related to operations and specific processes, installation of air pollution control equipment, emissions testing requirements, and monitoring and reporting protocols.

3.8 Greenhouse Gases

Greenhouse gases (GHGs) are of concern for climate change. The USEPA regulates the emissions of the following GHGs: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), and several fluorinated gases. The Project would include a boiler and furnaces that would combust fossil fuels and emit CO_2 as well as small amounts of CH_4 and N_2O. The chemical manufacturing process unit is subject to Federal regulation 40 CFR 63 Subpart FFFF which requires control of organic HAPs as well as hydrogen halide and halogen HAP. Syensqo will utilize thermal oxidizer and scrubber systems to comply with the requirements of this rule. The thermal oxidizer will be designed and operated to destroy 99% or greater of organic HAPs and hydrogen halide and halogen HAP. The thermal oxidizer and scrubber system will also destroy 99% of the fluorinated gases routed to it.

The CEQ issued interim guidance on January 9, 2023, relevant to the consideration of GHGs and climate change effects of proposed actions under NEPA (CEQ, 2023). The guidance advises federal agencies to consider "(1) the potential effects of a proposed action on climate change, including by assessing both GHG emissions and reductions from the proposed action; and (2) the effects of climate change on a proposed action and its environmental impacts."

3.8.1 Affected Environment

Rising global temperatures are associated with weather and climate shifts driving environmental and human impacts across a range of spatiotemporal scales and intensities (Intergovernmental Panel on Climate Change [IPCC], 2013). The Climate Reality Project identified the following climate-related environmental and public health hazards for Georgia: rising temperatures, intensifying drought, intensifying precipitation events, and flooding (CRP, 2020). While Richmond County and the city of Augusta are expected to experience GHG-driven climate change impacts generally consistent with IPCC forecasts, the type, frequency, and intensity of these impacts are not forecast for the county or the region specifically.

3.8.2 Environmental Consequences

Construction

Construction of the proposed Project would result in temporary GHG emissions from sources including vehicle transportation of equipment and materials, use of construction machinery, and curing of concrete. Use of electricity during construction may indirectly increase GHG emissions depending on electric generation sources/methods employed by local utilities serving the site. The Construction Carbon Calculator (BuildCarbonNeutral.org, 2007) approximates the net embodied carbon of a project's structures and site using the following basic input parameters: building size, stories above/below ground, primary structural material to be used, ecoregion within the U.S., predominant existing vegetation, predominant landscape vegetation to be installed, and the area of vegetation disturbed and installed. Estimates are given as net embodied carbon from construction activities, where "embodied carbon" includes emissions

from raw material extraction, transportation of materials, materials wasted, building operations and maintenance, and the emissions a building continues to produce after it is no longer in use. The online tool indicates an accuracy of about plus or minus 25 percent. The Construction Carbon Calculator estimates that construction, including development of 62 acres of ground currently occupied by "forest," would produce net emissions of 6,000 to 9,000 metric tons of embedded carbon (2023).

Operations

The Project would entail installation of new process equipment, a boiler, and furnaces, with 73,668 metric tons of estimated potential CO_2 emission per year.

At full capacity, the proposed Project would provide material to be used by battery manufacturers sufficient to support the production of batteries for more than 5 million EV batteries per year, thus contributing to a reduction of GHG emissions. The DOE (2022) provides estimates of annual CO_2 equivalent (CO_2e) emissions per vehicle (see pop-up labels on bar chart) for the following categories:

- All Electric: 1.237 metric tons per year of CO_2e [4];
- Plug-in Hybrid: 2.160 metric tons per year of CO_2e;
- Hybrid: 3.129 metric tons per year of CO_2e; and
- Gasoline: 5.713 metric tons per year of CO_2e.

The displacement of conventional gasoline vehicles by EVs powered by the batteries produced using materials provided by the proposed Project would be anticipated to result in reductions of GHG emissions far exceeding the GHG emissions generated by the proposed Project.

The USEPA (2023) states that in 2021, total gross U.S. greenhouse gas emissions were 6,340.2 million metric tons of CO_2e. Of that total amount, 1,757 million metric tons of CO_2e were from the transportation sector (see Figure ES-6).

Based on the assumptions that:

- Five million gasoline-powered vehicles would be replaced by 5 million all-electric vehicles; and
- Each replaced gasoline-power vehicle would reduce the amount of GHG emitted per year by 5.713 – 1.237 = 4.476 metric tons per year of CO_2e;

Then the total amount of GHG emitted per year would be 22.4 million metric tons per year of CO_2e, which is equal to 0.35 percent of the estimated total gross U.S. GHG emissions in 2021.

Based on the additional assumptions that:

- Each EV battery would have an operational lifespan of five years; and
- New EVs would be added to those from previous years;

[4] CO_2e is a measure of the impact on global warming of a given GHG. It is the number of metric tons of CO_2 emissions with the same long-term global warming impact as one metric ton of a given GHG.

Then, by year five, 25 million gasoline-powered vehicles would be replaced by 25 million all-electric vehicles, eliminating 112 million metric tons per year of CO_2e, which is equal to 1.77 percent of the estimated total gross U.S. GHG emissions in 2021.

The U.S. auto industry sold a total of 13.75 million light vehicles (i.e., cars and light trucks) in 2022 (Statistica, 2023b), of which 1.0 million were full electric vehicles (International Energy Agency [IEA], 2023; see pop-up labels on bar chart). Although estimates of GHG reduction based on the number of gasoline-powered cars replaced by all-electric vehicles are indicative of the potential benefits of the Project, it is likely that the polymer produced by the Project would be used for various other applications. Calculation of potential GHG reductions under these varied applications is beyond the scope of this analysis.

3.8.3 Proposed Best Management Practices

The Project would use thermally efficient equipment to minimize fuel consumption and the attendant GHG emissions. Syensqo would periodically assess the use of alternative fuels such as renewable natural gas as these alternatives become available.

The Project would result in a net reduction of GHG; therefore, the impact on GHG emissions is long-term and beneficial. Accordingly, no additional mitigation measures are required or proposed.

3.9 Noise and Vibration

3.9.1 Affected Environment

The proposed Project Site is in an industrial park area, adjacent to Syensqo's existing industrial facility. The entirety of the Project Site and the site of Syensqo's existing facility are zoned Heavy Industrial (see Section 3.18, Land Use). Zoning designations for adjacent properties include one-family residential, manufactured home residential, general business, agricultural, and neighborhood business.

Potential Noise Sensitive Areas (NSAs) north of the Project Site would be separated from the Project by the existing industrial facility and were not assessed. The nearest NSAs to the east of the Project are single-family residences approximately 0.2 mile from the site boundary, separated from the Project by an existing trucking company and logistics center. The nearest NSAs to the south and west of the Project are residences approximately 0.1 mile from the nearest proposed structure, separated by forested areas that would be maintained as a visual and noise buffer during operation. In addition, the nearest occupied buildings of Cross Creek High School and Gracewood Elementary School are located within one mile of the proposed Project Site (see Table 11).

3.9.2 Environmental Consequences

Construction

The loudest sources of noise during construction of the Project are expected to be associated with land clearing and mass grading. Heavy construction equipment, such as bulldozers, generates approximately 104 to 108 A-weighted decibels of sound (Spencer and Kovalchik 2007), which is an expression of the relative loudness of sounds as perceived by the human

ear[5]. A-weighting gives more value to frequencies in the middle of human hearing and less value to frequencies at the edges as compared to a flat audio decibel measurement. A-weighting is the standard for determining hearing damage and noise pollution.

Based on the nearest NSAs being within 0.1 mile of the Project Site, it is anticipated that construction noise would be clearly audible during the months of construction; however, land clearing and mass grading are anticipated to take only a few months and be conducted only during daytime hours (i.e., between 7 a.m. and 10 p.m.). Noise of construction would likely be audible at Cross Creek High School and might be audible at Gracewood Elementary School. Syensqo would require construction equipment to be outfitted with appropriate mufflers. In addition, the buffer areas between the construction site and the nearest NSAs would not be cleared, and the distance and forest vegetation are anticipated to reduce the noise experienced at the NSAs. Accordingly, the impact of noise during construction would be minor, intermittent, and short-term.

Operation of construction equipment causes ground vibration that spreads through the ground and diminishes in strength with distance. However, vibrations due to heavy equipment operation, e.g., pile driving, cannot be perceived by humans farther than 500 feet away (Maekawa, 1994).

Operations

The primary noise sources during operation are associated with equipment such as pumps, compressors, fans, and vehicles. The pumps and compressors would generally be housed within structures, which would reduce the noise emitted to the surrounding area, with a maximum noise level of 82 dBA near the source. The noise of commuter vehicles would likely be audible at NSAs, but the buffer areas between the Project Site and the nearest NSAs would not be cleared, and the distance and forest vegetation are anticipated to reduce the noise experienced at the NSAs. Accordingly, the impact of noise during operation would be permanent but negligible.

3.9.3 Proposed Best Management Practices

Potential noise impacts would be reduced by the restriction of major construction to daytime hours, use of mufflers on construction equipment, and forested buffers between the Project Site and the NSAs. The anticipated noise impacts would be minor, and no mitigation is necessary or proposed.

3.10 Geology, Topography, and Soils

3.10.1 Affected Environment

The proposed Project Site is near the Belair fault zone and is located near Augusta, Georgia, with faults being mapped predominantly in the crystalline rocks of the Piedmont physiographic province. This fault zone is not particularly active (e.g., Prowell and O'Connor 1978), and the

[5] https://www.techtarget.com/whatis/definition/A-weighted-decibels-dBA-or-dBa-or-dBa.

U.S. Geological Survey (USGS) considers the Augusta area to be of low risk for slight or damaging earthquake activity (USGS 2014).

The USDA NRCS maps the following soil types on the proposed Project Site (Table 16).

Table 16. Soil Types Present on the Project Site

Soil Code	Soil Name	Farmland Classification	Drainage Classification	Hydric Rating	Acres	Percent
AgC	Ailey loamy sand, 5 to 8 percent slopes	Not prime farmland	Well drained	0	1.7	2.1%
DgA	Dogue fine sandy loam, 0 to 3 percent slopes	All areas are prime farmland	Moderately well drained	0	14.7	18.1%
DoB	Dothan loamy sand, 2 to 5 percent slopes	All areas are prime farmland	Well drained	0	3.3	4.0%
FsB	Fuquay loamy sand, 1 to 5 percent slopes	Farmland of statewide importance	Well drained	0	27.0	33.3%
Ra	Rains loamy sand	Not prime farmland	Poorly drained	100	8.9	11.0%
TwB	Troup fine sand, 1 to 5 percent slopes	Not prime farmland	Somewhat excessively drained	0	25.6	31.5%
Totals					**81.3 ac**	**100.0%**

Values are rounded for presentation, and totals may not equal the sum of the addends.
Source: USDA NRCS 2023

Rains loamy sand is considered a hydric soil. Dogue fine sandy loam and Dothan loamy sand are areas of prime farmland and Fuquay loamy sand is farmland of statewide importance.

The NRCS rates these soils as having a slight to moderate erosion potential.

Desktop and field site investigations (i.e., Phase I and limited Phase II Environmental Site Assessments) were conducted in advance of the proposed Project to characterize the potential for hazardous constituents of concern in the soils. Based on these investigations, a small amount of residual material was remediated and properly disposed of prior to the selection of the Project Site for this purpose. Based upon these previous investigations, it is anticipated that the potential for encountering constituents of concern in the soils has been addressed.

3.10.2 Environmental Consequences

Construction

The Project Site is in an area with low seismic activity, and Syensqo would base the design of foundations on the results of a geotechnical survey and compliance with local building codes. Therefore, there is negligible risk to the Project from seismic activity.

Syensqo would employ erosion and sediment control measures to minimize the potential for mobilization of soils by stormwater during construction. Syensqo would develop a Stormwater Pollution Prevention Plan (SWPPP) to define the placement of these BMPs. The BMPs would be installed immediately following land clearing and mass grading and would be maintained until soils were stabilized through structures, pavement, and/or permanent revegetation. The Georgia National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit for Standalone Projects (GAR100001) requires that permanent vegetation achieve at least 80 percent coverage before BMPs can be removed. Based on these measures, erosion by stormwater would not have adverse effects.

Operations

Following construction, risk from seismic activity would be negligible for the projected operational life of the Project. No disturbance of soils would be anticipated, so erosion and sedimentation would not be anticipated.

3.10.3 Proposed Best Management Practices

Adherence to local building codes and compliance with the NPDES Construction Stormwater General Permit would ensure risks from seismic activity and from erosion and sedimentation are minimal. No adverse impacts are anticipated, and no mitigation measures are required or proposed.

3.11 Surface Water and Groundwater

3.11.1 Affected Environment

Surface Water

The proposed Project lies wholly within the Lower Spirit Creek subwatershed. The U.S. Geological Survey (USGS) identifies this subwatershed as 12-digit Hydrologic Unit Code 030601060303. The Lower Spirit Creek watershed drains an area of approximately 29 square miles and discharges directly into the Savannah River. This watershed includes Spirit Creek and its tributaries, excluding Little Spirit Creek. Surface water on-site generally flows north to south and ultimately flows into Spirit Creek, south of the Project Site. The onsite surface waters are described along with wetlands in Section 3.5, Wetlands and Floodplains.

Section 305(b) of the Clean Water Act (CWA) requires states to assess water quality every two years, and Section 303(d) of the CWA requires states to submit a list of all waters not meeting their designated uses. Spirit Creek from McDade Pond to the Savannah River is listed as an impaired water failing to meet fecal coliform standards and not supporting an indigenous fish community (impaired Bio F) attributed to elevated thallium (Georgia EPD 2022). Two Total Maximum Daily Load (TMDL) Evaluations have been prepared for this segment of Spirit Creek.

The Georgia EPD (2005) issued one TMDL Evaluation of 32 tributaries to the Savannah River, focusing on fecal coliform. In 2016, the Georgia EPD published a TMDL Evaluation of seven tributaries to the Savannah River, including Spirit Creek (Georgia EPD, 2016). The 2016 TMDL Evaluation determined that an approach for addressing the biological impairment to Spirit Creek would require reducing sediment loading and recommended several management practices applicable to both point source and non-point source discharges.

The proposed Project would not produce fecal coliform or mobilize it from existing sources; therefore, it is not anticipated to adversely affect the receiving waterbodies. Erosion and sedimentation during construction would be managed through the implementation of a SWPPP and BMPs described below. Stormwater discharge during operation would be managed by an onsite system and monitored on a monthly basis for the life of the Project to ensure that discharges meet the NPDES permit criteria.

The WOTUS delineation (November 30-December 1, 2023) identified the surface waters within the Project Site as summarized in Table 17. Each jurisdictional feature as determined in the AJD issued on June 5, 2024, is also included in Table 17. The Georgia EPD defines a stream buffer on intermittent and perennial streams, extending 25 feet from the line of wrested vegetation. The Georgia EPD does not define a buffer on ephemeral streams.

Table 17. Summary of Delineated Surface Water Features

Feature ID	Feature Type	USACE/USEPA Jurisdictional (per AJD)?	25-Foot Georgia EPD Buffer?
Streams			
Intermittent Stream 1	Intermittent Stream	Yes	Yes
Intermittent Stream 2	Intermittent Stream	Yes	Yes
Ephemeral Stream 1	Ephemeral Stream	No	No
Ephemeral Stream 2	Ephemeral Stream	No	No
Ephemeral Stream 3	Ephemeral Stream	No	No
Ephemeral Stream 4	Ephemeral Stream	No	No
Non-Jurisdictional Upland Drainages			
Ditch 2	Non-Jurisdictional Upland Drainage	No	No
Ditch 1	Non-Jurisdictional Upland Drainage	No	No
Ditch 3	Non-Jurisdictional Upland Drainage	No	No
Pond	Stormwater Detention Basin	No	No

Groundwater

The predominant aquifer underlying the Project site is the Southeastern Coastal Plain Aquifer System (USGS Publication HA 730_G). The site is near the northern limits of this aquifer system, making this area likely a zone of recharge. Depth to the aquifer system ranges from 50 to 100 feet below ground surface in the vicinity of the site. Augusta Utilities, which supplies

potable water to the City of Augusta and the surrounding area, has a water supply well field, Well Field No. 2, located approximately 1.5 miles east of the Project location. According to a groundwater conditions and studies report for Richmond County published by the USGS in 2011 (Gonthier et al.), the Project location is hydrologically upgradient from the drinking water well field. The proposed Project would obtain process and potable water from the City of Augusta and would not affect groundwater availability to Augusta Utilities' Well Field Number 2.

3.11.2 Environmental Consequences

Surface Water

Construction

Impacts on surface waters from proposed Project construction are anticipated to be local, permanent, and minor. Construction would include the permanent fill of surface waters within the limits of development and the rerouting of water flow into existing surface waters to maintain site hydrology. It would also include the disturbance of surface waters within construction areas. However, there are many similar surface waters within this ecoregion, and the permanent and temporary impacts would be minor. In addition, surface-water impacts would be mitigated in accordance with USACE regulations.

Construction of the proposed Project has the potential to cause minor, temporary, indirect impacts on surface waters, due to erosion and sedimentation during rain events. Potential impacts on surface waters from direct runoff would be minimized through the implementation of a SWPPP and BMPs required by the Georgia EPD General Permit for Stormwater Discharges Associated with Construction Activities (Permit number GAR100001). Syensqo would submit a Notice of Intent for coverage prior to ground disturbance activities associated with construction. Additionally, Syensqo would request approval from the City of Augusta for an erosion and sediment control plan detailed in the Augusta Stormwater Design Manual, as required for site plan approval by the City of Augusta, further minimizing impacts on surface waters from runoff.

Operations

Operations of the proposed Project would produce stormwater, which is subject to NPDES permitting, rules, and guidelines. Syensqo would obtain an NPDES multi-sector general permit for stormwater discharges associated with industrial activity from the Georgia EPD, prior to discharge. Discharged stormwater from the proposed Project would be captured in a stormwater retention pond and then discharged at a limited rate into an unnamed, intermittent tributary that flows generally southeast before discharging into McDade Pond, an impoundment of Spirit Creek.

During the operational phase, chemicals would be stored in aboveground tanks with secondary containment. Accumulated material in the secondary containment such as stormwater would be tested and either diverted back to the process or sent offsite for treatment. If the accumulated stormwater meets applicable standards, it may be discharged through the permitted stormwater outfall. Storage piles, leachates, and wastewater discharges would not be directed to groundwater or surface water in the vicinity of the Facility.

Groundwater

Construction

The proposed Project would obtain process and potable water from the City of Augusta and would not affect groundwater availability to Augusta Utilities' Well Field Number 2.

The potential for spills of oil and diesel, hazardous chemicals, paint and solvent, hydraulic fluid, greases, diesel exhaust fluid, or coolant during construction or operation would be minimized by engineering controls to reduce spillage risk, secondary containment structures, maintaining and restocking spill kits, and establishing a timely spill response protocol. In the event that a spill occurs, migration to groundwater would be avoided by rapid cleanup, as would be described in the SWPPP.

No impacts on groundwater from construction are anticipated.

Operation

The proposed Project would obtain process and potable water from the City of Augusta and would not affect groundwater availability.

3.11.3 Proposed Best Management Practices

The USACE has determined that no compensatory stream mitigation is required for the minor stream impacts associated with the Project.

3.12 Vegetation and Wildlife

3.12.1 Affected Environment

3.12.1.1 Vegetation

The Project Site is in the Sand Hills Level IV ecoregion, which is a component of the Southeastern Plains Level III ecoregion. Native vegetation in the Sand Hills depends on its position in the landscape, soils, and water availability. On higher, dry sites, drought-tolerant vegetation, such as turkey oak (*Quercus laevis*), longleaf pine (*Pinus palustris*), and wiregrass (*Aristida stricta*) dominate an undisturbed landscape. Oak and loblolly pine forest is native to more mesic uplands. Stream valleys and seepage slopes are dominated by trees such as black gum (*Nyssa sylvatica*), red maple, and sweetgum.

A field survey of vegetation and wildlife habitat on the Project Site was performed on November 30-December 1, 2023. Vegetation within the proposed site is predominantly composed of a mixture of evergreen species, such as loblolly pine, and deciduous hardwood. A review of historical aerial imagery (Google, 2023) identified that the site trees had been clearcut by a prior owner in approximately late-2010 and that the current vegetation is nearly all young second-growth forest since that time.

The survey identified the following list of vegetation types:

- Loblolly pine;
- Water oak;
- Sweetgum;
- American elm (*Ulmus americana*);
- Chinese privet;
- Eastern red cedar (*Juniperus virginiana*);
- Greenbrier (*Smilax rotundifolia); and*
- Ebony spleenwort (*Asplenium platyneuron*).

The loblolly pines are typically young saplings estimated at less than 3 inches in diameter-at-breast height or mature trees between 6- and 8-inches diameter at breast height on average. Eastern red cedar saplings are common near the banks of the creek channel that runs north to south through the center of the site. The greenbrier and ebony spleenwort form a thin herbaceous layer.

3.12.1.2 Wildlife

For federally listed species, the desktop analysis used the U. S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system. For state-listed species, the Georgia Department of Natural Resources (DNR) biodiversity portal (Georgia DNR 2023a) was queried to identify state-protected plants and animals that may inhabit the Project Site. Listed species identified by the IPaC and Georgia DNR databases are summarized and presented below in Table 18. For the protected species potentially present, a summary of suitable habitat, and an initial determination of whether each species is likely to be present is included. No critical habitats were identified within the site boundary (USFWS 2023). None of the species were observed in the Project Site.

Typical wildlife species found in upland pine-oak forests include white-tailed deer (*Odocoileus virginianus*), raccoon (*Procyon lotor lotor*), gray squirrel (*Sciurus carolinensis*), eastern cottontail (*Sylvilagus floridanus*), black racer (*Coluber constrictor*), eastern box turtle (*Terrapene carolina carolina*), pileated woodpecker (*Dryocopus pileatus*), and several species of passerine birds such as Carolina chickadee (*Poecile carolinensis*) and white-breasted nuthatch (*Sitta carolinensis*). Common bat species such as the eastern red bat (*Lasiurus cinereus*) and big brown bat (*Eptesicus fuscus*) may use forests as roosting and foraging areas during the active season (generally March-October).

Table 18. State and Federally Protected Species with Potential to Occur on or Near the Project Site

Common Name (Scientific Name)	Status*		Preferred Habitat	Potential to Occur on Project Site
	State	Federal		
Amphibians/Reptiles				
Gopher Tortoise (*Gopherus polyphemus*)	T	-	Sandhills, longleaf pine-turkey oak woods, and old fields	None; No suitable habitat on site
Spotted Turtle (*Clemmys guttata*)	U	-	Heavily vegetated swamps, marshes, bogs, small ponds, and tidally influenced freshwater wetlands; nest and possibly hibernate in surrounding uplands	None; No suitable habitat on site
Southern Hognose Snake (*Heterodon simus*)	T	-	Sandhills, fallow fields, longleaf pine-turkey oak	None; No suitable habitat on site
Gopher Frog (*Lithobates capito*)	R	-	Sandhills; dry pine flatwoods; breed in isolated wetlands	None; No suitable habitat on site
Birds				
Red-cockaded Woodpecker (*Dryobates borealis*)	E	E	Open pine woods; pine savannas	None; No suitable habitat on site. Does not appear on IPaC. The IPaC is limited to the Project Site and has a narrower focus than the county-wide WRD list.
Bald Eagle (*Haliaeetus leucocephalus*)	T	-	Edges of lakes and large rivers; seacoasts	Low; site is within a few miles of a large perennial stream.

Common Name (Scientific Name)	Status*		Preferred Habitat	Potential to Occur on Project Site
	State	Federal		
Fishes				
Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*)	E	E	Estuaries; lower end of large rivers in deep pools with soft substrates; spawn as far inland	None; No suitable habitat on site. Does not appear on IPaC. The IPaC is limited to the Project Site and has a narrower focus than the county-wide WRD list.
Shortnose Sturgeon (*Acipenser brevirostrum*)	E	E	Estuaries; lower end of large rivers in deep pools with soft substrates	None; No suitable habitat on site. Does not appear on IPaC. The IPaC is limited to the Project Site and has a narrower focus than the county-wide WRD list.
Bluebarred Pygmy Sunfish (*Elassoma okatie*)	E	-	Temporary ponds and stream backwaters with dense aquatic vegetation	None; No suitable habitat on site
Robust Redhorse (*Moxostoma robustum*)	E	-	Medium to large rivers, shallow riffles to deep flowing water; swift current	None; No suitable habitat on site
Mammals				
Southeastern Pocket Gopher (*Geomys pinetis*)	T	-	Sandy well-drained soils in open pine woodlands with herbaceous groundcover; fields and grassy roadsides	None; No suitable habitat on site
Rafinesque's Big-eared Bat (*Corynorhinus rafinesquii*)	R	-	Pine forests; hardwood forests; caves; abandoned buildings; bottomland hardwood forests and cypress-gum swamps	Low; roost trees or structures were not observed on site, but foraging habitat is present.
Mussels/Clams				
Delicate Spike (*Elliptio arctata*)	E	-	Creeks and rivers with moderate current; mainly in crevices and under large rocks in silt deposits	None; No suitable habitat on site

Common Name (Scientific Name)	Status*		Preferred Habitat	Potential to Occur on Project Site
	State	Federal		
Atlantic Pigtoe (*Fusconaia masoni*)	E	T	Medium-sized streams to large rivers, coarse sand and gravel at edge of riffles; fast flowing and well-oxygenated water	None; No suitable habitat on site. Does not appear on IPaC. The IPaC is limited to the Project Site and has a narrower focus than the county-wide WRD list.
Savannah Lilliput (*Toxolasma pullus*)	T	-	Large rivers to small creeks, oxbows, and sloughs; found in silty sand and sand in shallow water along, streams, and big rivers	None; No suitable habitat on site
Insects				
Monarch Butterfly (*Danaus plexippus*)	C	-	Prairies, meadows, and grasslands with milkweed	None; No suitable habitat on site
Plants				
Ocmulgee Skullcap (*Scutellaria ocmulgee*)	T	PT	Moist hardwood forests on stream terraces, slopes, and bluffs. Also found on riverbanks and nearby ravine slopes.	Low; potentially suitable habitat is present, but site was previously clearcut (now second-growth).
Relict Trillium (*Trillium reliquum*)	E	E	Mesic hardwood forests on ravine slopes or on bottomlands and floodplains. Underlying bedrock is typically calcium rich.	Low; potentially suitable habitat is present, but site was previously clearcut (now second-growth).

*C = Candidate, E = Endangered, PT = Proposed Threatened, T = Threatened, R = Rare, U = Unusual
WRD = Wildlife Resources Division of the Georgia Department of Natural Resources

Due to the historical use of the Project Site for agricultural purposes, the more recent development for industrial purposes, the relatively recent (2010) clearcutting of the site, and the current pine-dominated cover, it is unlikely that the proposed Project Site contains federally or state-protected species.

The IPaC report also identified the following birds protected under the Migratory Bird Treaty Act. For each species, Table 19 provides the species' preferred nesting habitat, typical breeding period, and an initial determination of whether each species is likely to be present.

Table 19. Migratory Birds that may Breed on the Project Site

Common Name (Scientific *Name*)	Preferred Nesting/Breeding Habitat	Breeding Time of Year	Potential to Occur Onsite
Bald Eagle *(Haliaeetus leucocephalus)*	Large trees in forested areas adjacent to large bodies of water	Sep 1st to Jul 31st	Not likely
American Kestrel *(Falco sparverius Paulus)*	Tall dead trees or utility poles generally with an unobstructed view of surroundings. Prefers sandhill habitats but also flatwood settings	Apr 1st to Jul 31st	Not likely
Brown-headed Nuthatch *(Sitta pusilla)*	Nests in cavities in dead wood, especially longleaf pine; requires soft wood for primary excavation	Mar 1st to Jul 15th	Not likely
Chimney Swift *(Chaetura pelagica)*	Anthropogenic structures as well as the interior of hollow tree trunks and branches, Pileated Woodpecker cavities, and rock shelters	Mar 15th to Aug 25th	Not likely
Eastern Whip-poor-will *(Antrostomus vociferus)*	Mixed woodland conifer hardwood forests	May 1st to Aug 20th	Possible
Kentucky Warbler *(Oporornis formosus)*	Medium-aged hardwood and woodland forests, swamps, shrubland, with well-developed ground cover	Apr 20th to Aug 20th	Not likely
Painted Bunting *(Passerina ciris)*	Scattered brush, riparian trees, weedy and shrubby areas, woodland edges	Apr 25th to Aug 15th	Not likely
Prairie Warbler *(Dendroica discolor)*	Dry scrub, low pine-juniper, barrens, burned-over areas, sprout lands. Small patches of habitat may be suitable for breeding	May 1st to Jul 31st	Not likely
Prothonotary Warbler *(Protonotaria citrea)*	Primary habitats are almost always near standing water, mature deciduous floodplain, river, and swamp forests	Apr 1st to Jul 31st	Not likely

Common Name (Scientific *Name*)	Preferred Nesting/Breeding Habitat	Breeding Time of Year	Potential to Occur Onsite
Red-headed Woodpecker *(Melanerpes erythrocephalus)*	Open woodland, especially with beech or oak, parks, cultivated areas. Nests in cavities in live trees, dead snags, utility poles, or fenceposts	May 10th to Sep 10th	Likely
Rusty Blackbird *(Euphagus carolinus)*	Breeding habitat includes moist woodland (primarily coniferous), bushy bogs and wooded edges of watercourses	Apr to May	Not likely
Swallow-tailed Kite *(Elanoides forficatus)*	Species occupies diverse vegetation types, primarily swamps	Mar 10th to Jun 30th	Not likely

Most of the migratory bird species do not have suitable breeding habitat in the Project Site. With the exception of the bald eagle, which does not appear to have suitable habitat onsite, the breeding period for most species ends in August and does not restart until April, therefore, tree-clearing during the late fall and winter months (October to February) would not impact breeding of migratory birds.

3.12.2 Environmental Consequences

3.12.2.1 Vegetation

Construction

Impacts on vegetation from proposed Project construction are anticipated to be direct and long-term. Construction would include the permanent removal of vegetation within the limits of development and the temporary localized removal of topsoil and vegetation within construction areas. However, the vegetation within the Project Site is similar to the extensive acreage of upland pine-oak forest within this ecoregion, and the permanent and temporary impacts would be minor.

Operations

Operations of the proposed Project are not anticipated to create additional impacts on vegetation.

3.12.2.2 Wildlife

Construction

Impacts on potentially suitable wildlife habitat from proposed Project construction are anticipated to be direct and long-term. Construction would include the permanent removal of potentially suitable wildlife habitat within the limits of development and temporary removal of potentially suitable wildlife habitat within temporary construction areas. However, the potentially

suitable wildlife habitat within the Project Site is similar to the extensive acreage of upland pine-oak forest within this ecoregion, and the permanent and temporary impacts would be minor.

Based on the DOE's review of the IPaC report, federally protected species are not likely to be present within the Project Site, and no impacts are expected on these species. Accordingly, the DOE has determined that the Project would have ***No Effect*** on species listed under the Endangered Species Act. In addition, because no critical habitat is present, no impacts on critical habitat would occur.

Operations

Operations of the proposed Project are not anticipated to create additional impacts on wildlife or their habitat.

3.12.2.3 Proposed Best Management Practices

Because no significant impacts are anticipated, no mitigation is required or proposed.

3.13 Regulated Waste

3.13.1 Affected Environment

Syensqo's adjacent, existing facility currently manages regulated waste streams. These waste streams are disposed of off-site in permitted industrial or municipal solid waste disposal facilities, in accordance with state and federal solid waste management regulations.

3.13.2 Environmental Consequences

Construction

Construction is not anticipated to generate regulated wastes.

Operations

The proposed Facility would generate hazardous and non-hazardous regulated waste, which would be disposed of in the same manner as those at the existing facility.

Syensqo has corporate environmental policies on design to address the risk from the storage of chemicals including requirements for design of equipment, secondary containment, fire protection, worker safety, and protection of the environment. Syensqo also has the following environmental plans:

- Spill Prevention Control and Countermeasures Plan;
- Stormwater Pollution Prevention Plan (SWPPP); and
- Risk Management Plan.

3.13.3 Proposed Best Management Practices

Regulated waste would be responsibly managed in accordance with RCRA regulations, in the same manner as those at the existing Syensqo facility (USEPA ID: GAD107525503), and no additional measures are required or proposed.

3.14 Utilities and Energy Use

3.14.1 Affected Environment

The existing Syensqo facility and the proposed Project Site are served by existing utilities (City of Augusta 2023b). As discussed below, providing utility service to the proposed Project is part of the normal course of business for these utilities.

Water and sewer service is provided by the Augusta Utilities Department. The Augusta Utilities Department currently provides water and sewer to a service area of 230 square miles and a population of over 160,000. The distribution system consists of approximately 1,200 miles of water mains. The Department includes three water treatment plants, one drawing surface water from the Savannah River and two drawing groundwater from wellfields. The surface water treatment plant has a design capacity of 60 million gallons per day (MGD) and daily flows of approximately 24 MGD. The two groundwater treatment plants have design capacities of 10 MGD each and a combined daily flow of approximately 15 MGD (City of Augusta 2023b).

Electrical service is provided by Georgia Power. Georgia Power's 2022 territorial sales were 86 billion kilowatt-hours (Georgia Power, 2023a). Georgia Power continues to add renewable energy to its energy mix, which includes 7 percent renewables and 2 percent hydropower in 2022 (Georgia Power, 2023b).

Natural gas is provided by Atlanta Gas Light (Atlanta Gas Light 2015). Atlanta Gas Light provides natural gas delivery service to more than 1.6 million customers in Georgia. Atlanta Gas Light operates and maintains the infrastructure that delivers the gas to customers of certified natural gas marketers (Atlanta Gas Light 2023).

Trash Pickup, Solid Waste, and Recycling Services are provided by local vendors through contracts with the City of Augusta’s Environmental Services Department.

3.14.2 Environmental Consequences

Construction

Syensqo would use portable generators, temporary power supply, water tanks, and portable restrooms during construction to provide these services until new permanent connections with the existing utilities have been constructed. Accordingly, there would be no impacts on the utilities during construction.

Operations

The existing, adjacent Syensqo facility and the proposed Project Site are served by existing utilities (City of Augusta 2023c). Each of these utilities has current and projected excess capacity far beyond the requirements of the proposed Project, and these services would be

provided to the proposed Project as part of the normal course of business for these utilities (utility confirmation letters in Appendix E). Water and sewer services will be provided by Syensqo's existing facility with utility tie-ins constructed within the footprint of the proposed Project Site. Steam and nitrogen required for the manufacturing process will be extended from Syensqo's existing, adjacent facility.

The proposed Project would produce process wastewater, which is subject to the USEPA's new source, effluent guidelines for the OCPSF category (40 CFR Part 414). Process wastewater would be pretreated onsite to meet or exceed the federal effluent guidelines, prior to discharge to the Augusta Utilities Department wastewater collection system for treatment in the Publicly Owned Treatment Works. Syensqo would contract with the Augusta Utilities Department for this service.

3.14.3 Proposed Best Management Practices

Syensqo's existing facility and proposed Project would be served by existing utilities as a normal course of business. Collocating the proposed Project with Syensqo's existing, adjacent facility within an existing industrial area takes advantage of existing utility infrastructure to minimize the need for additional utility infrastructure. No adverse effects are anticipated, and no mitigation is required or proposed.

3.15 Transportation and Traffic

3.15.1 Affected Environment

The proposed Project Site is in an industrial park area east of Clanton Road, south of Tobacco Road, approximately 1 mile west of U.S. Highway 25, 1.5 miles east of Georgia State Route 56, and roughly 2.3 miles south of Interstate Highway 520 (I-520). The Project Site is served by an existing rail spur, which will be reconfigured within the Project Site to serve the Project. Augusta Regional Airport (AGS) is located approximately 2.2 miles east of the Project Site. The nearest public bus is approximately 2 linear road miles from the Project Site (Augusta Georgia Transit, 2023).

Tobacco Road is classified as a principal arterial (rural). It shows an eastbound peak in volume of approximately 210 vehicle per hour at 7:00 a.m. and a westbound peak in volume of 299 vehicle per hour at 5:00 p.m. The annual average daily traffic of Tobacco Road has decreased from 5,990 in 2013 to 4,700 in 2022 ([Georgia Department of Transportation [GDOT], 2023).

The current daily traffic to and from the Project Site reflects the commute trips and truck deliveries of spent production material and processing chemicals from Syensqo's adjacent, existing facility.

3.15.2 Environmental Consequences

Construction

Construction activities are expected to take approximately 18 months to complete. During the construction phase, the Project is expected to employ up to a peak of approximately 500 construction personnel. Approximations of construction traffic are provided in Section 2.3.

The additional road traffic would be anticipated to create short-term, minor adverse impacts on the level of service of the existing roads; however, several alternate routes are available, which minimizes the potential impact. Reconfiguration of the railroad spur will be entirely within the Project Site and will not affect other users.

Operations

During operations, the Project is expected to employ approximately 100 FTE operations personnel. Employee parking will be provided by Syensqo's existing, adjacent facility. Deliveries of feedstock and shipment of products will be by rail, as will various supplies. For those supplies that will be delivered by truck, Syensqo estimates that approximately 20 truck trips per week will be required. For outgoing product, Syensqo estimates that approximately 80 truck trips per week would be required. In addition, commuter vehicles will add approximately 1,000 light-vehicle trips per week. Railcars will also be used and will range from 10 to 15 railcars per week.

The additional road traffic would represent a small proportion of the current traffic on Tobacco Road. It would be anticipated to have negligible, short-term impacts on the level of service of the existing roads. As during construction, several alternate routes are available, which minimizes the potential impact. Use of the rail spur would not adversely affect other rail users and would reduce the number of additional truck trips needed to operate the Project, minimizing potential impacts on road traffic.

3.15.3 Proposed Best Management Practices

No mitigation measures would be required for transportation and traffic.

3.16 Public and Occupational Health and Safety

3.16.1 Affected Environment

The existing Syensqo facility manages public and occupational health and safety through Syensqo's Health, Safety, and Environmental (HSE) program. The HSE program includes training and monitoring of the following topics: confined spaces, lockout/tagout, fire prevention, hazard assessment, personal protective equipment, hearing conservation, fall protection, and medical surveillance. Syensqo's employees are required to participate in the HSE program, including training and monitoring.

3.16.2 Environmental Consequences

Construction

Syensqo would ensure that construction is managed in accordance with Occupational Safety and Health Administration (OSHA) requirements and that the construction site is secured to prevent risk to members of the public. In addition, Project construction will be conducted under a detailed safety plan that includes the learnings from previous Syensqo/Solvay capital projects and input from the engineering contractor. The plan is based on Syensqo/Solvay's Life-Saving Rules and safety principals, which hold that safety is both a right and a responsibility. The Life-Saving Rules initiative was launched in 2015 to prevent fatal accidents and accelerate the continuous progress curve. Eight rules have been defined, for the eight main dangerous

activities (e.g., working at height, on powered systems, traffic, etc.). The initiative requires strict compliance by everybody and full enforcement by management.

Operations

Although employees working at the proposed Facility could be exposed to a variety of situations, Syensqo would manage the potential for exposure through the HSE program. Syensqo would update its existing Emergency Action Contingency Plan to incorporate operations at the proposed Facility. This plan addresses unanticipated events (e.g., natural disaster, weather events) and provides procedures for the protection of the site's personnel, environment, and infrastructure. This plan would also address the highly unlikely potential for intentional destructive acts. In addition, the proposed Facility would be secured to prevent access by members of the public.

In addition, Syensqo is a member of OSHA's Voluntary Protection Programs which recognize employers and workers in the private industry and federal agencies who have implemented effective safety and health management systems and maintain injury and illness rates below national BLS averages for their respective industries. In Voluntary Protection Programs, management, labor, and OSHA work cooperatively and proactively to prevent fatalities, injuries, and illnesses through a system focused on hazard prevention and control, worksite analysis, training, and management commitment and worker involvement.

3.16.3 Proposed Best Management Practices

Syensqo's existing HSE program addresses public and occupational health and safety. No mitigation is required or proposed. Syensqo will update the training and documentation based on the proposed Facility and operations.

3.17 Parks and Recreation

3.17.1 Affected Environment

The City of Augusta maintains more than 60 parks of diverse sizes, as well as greenspaces, athletic fields, walking trails, playgrounds, boating and fishing areas, dog parks, and cemeteries (City of Augusta 2023d). One State of Georgia-owned wildlife management area, Spirit Creek Forest Wildlife Management Area, is located 0.25 mile from the Project Site (Georgia DNR 2023b). This facility is open to the public for hunting, bird watching, bike riding, and other passive recreation. Access to the entrance of Spirit Creek Forest Wildlife Management Area is from Smokey Road which would not be impacted significantly by construction or operation traffic from the proposed Facility. Additionally, the Phinizy Swamp Wildlife Management Area (Georgia DNR 2023c) is more than three miles from the proposed Project Site and would not be affected. No other areas having special designation, such as federal and state-designated wilderness areas, national parks, national natural landmarks (National Park Service 2023), wild and scenic rivers (ArcGIS 2023), state and federal wildlife refuges (Georgia DNR 2023a), or marine sanctuaries (National Oceanic and Atmospheric Administration 2023) were identified within 3 miles of the Project Site. The nearest publicly owned recreation areas to the Project Site are summarized in Table 20, along with the distance to the recreation areas.

Table 20. Recreation Areas Near the Project Site

Recreation Area	Address	Distance/Direction from Project Site
Spirit Creek Forest Wildlife Management Area	4052 Smokey Road	0.25 mile southwest
Butler Park	1812 Phinizy Road	1.1 miles north, northeast
Gracewood Community Center	2309 Tobacco Road	1.5 miles west, northwest
Apple Valley Park	1725 Marvin Griffin Road	1.9 miles north, northeast
Phinizy Swamp	1750 Gravel Pit Road	3 miles northwest

3.17.2 Environmental Consequences

The impact on parks and recreation from the proposed Project is anticipated to be negligible. The proposed Facility does not involve or affect any local/municipal parks and recreation facilities.

3.17.3 Proposed Best Management Practices

No impacts on this resource are anticipated, so no mitigation is required or proposed.

3.18 Land Use

3.18.1 Affected Environment

The Richmond County online GIS database (City of Augusta 2023e) was examined for information regarding land use and parcel information in the Project Site. The entirety of the Project Site and the site of Syensqo's existing facility are zoned Heavy Industrial based on a review of the Richmond County GIS website (City of Augusta 2023e) and local zoning codes. Zoning designations for adjacent properties include one-family residential, manufactured home residential, general business, agricultural, and neighborhood business. Existing utilities are discussed in Section 3.14, Utilities and Energy Use, and parks and recreational areas near the Project Site are discussed in Section 3.17, Parks and Recreation.

3.18.2 Environmental Consequences

Syensqo proposes to construct and operate an industrial facility on the Project Site. The proposed Project is consistent with local zoning, historical land use on the Project Site, and nearby land uses; therefore, the effects of the Project are anticipated to be negligible.

3.18.3 Proposed Best Management Practices

No impacts on land use are anticipated, so no mitigation is required or proposed.

3.19 Visual and Aesthetic Resources

3.19.1 Affected Environment

The proposed Project Site is currently undeveloped, and most of the Project Site is wooded with a mixture of young evergreen and deciduous tree species. It is primarily vegetated with secondary-growth upland forest. The Project Site contains the remaining concrete building pads of the recently demolished Weylchem chemical manufacturing facility, which existed as an industrial visual element from circa 1977 to circa 2016. A modern cellular communications tower, constructed between 1993 and 1999, is present approximately 750 feet west of the Project Site.

The Project Site lies to the south of the adjacent to the existing Syensqo facility. USACE is within the viewshed of residential areas to the east, south, and west; however, there are forested areas that would act as visual buffers on the adjacent parcels to the east and south. The potential viewshed from historic properties is discussed in Section 3.6, Cultural Resources.

3.19.2 Environmental Consequences

The proposed Project would add an industrial element to the currently undeveloped Project Site; however, the Project Site is already in an industrial area, zoned Heavy Industrial (see Section 3.18, Land Use), and occupied by the Weylchem chemical manufacturing facility from circa 1977 to circa 2016. Accordingly, the addition of this industrial element would be consistent with the site's appearance since the 1970s and not be considered out of character.

The existing Syensqo facility north of the Project Site would screen the proposed Project from visual receptors to the north. The existing forested areas to the east, south, and west would provide visual buffers from visual receptors in those respective directions. In addition, Syensqo would maintain a minimum of a 50-foot natural vegetative buffer on the south property line and a minimum 25-foot buffer from jurisdictional wetlands, which would further reduce the visual impacts of the Project.

The proposed Project would include several tall structures (e.g., stacks, communications towers), which would be visible above the forest vegetation. The maximum height of these structures would be approximately 175 feet. These structures would be similar in visual character to those at the existing adjacent Syensqo facility and the cellular communications tower west of the Project Site.

Based on the proposed use of the Project Site being similar in visual character to the historical use of the Project Site, and the offsite and onsite visual buffers, the impact on visual resources would be negligible.

3.19.3 Proposed Best Management Practices

No visual or aesthetic impacts are anticipated, so no mitigation is required or proposed.

3.20 Cumulative Impacts

The proposed Project is in a heavy industrial zone with neighbors who may potentially expand their industrial or commercial operations. Syensqo is not aware of other planned industrial or

commercial development in the vicinity of the proposed Project, and no reasonably foreseeable future actions have been identified that would interact with the proposed Project to generate cumulative adverse impacts. Additional detail regarding specific resource categories is provided in Table 21.

Table 21. Cumulative Impacts

Resource Categories	Cumulative Impacts under the Proposed Project
Socioeconomics	There is currently no forecast for a population influx to Augusta-Richmond County from the proposed Project or from future industrial expansion within the industrial district, though expansion of neighboring industrial facilities could theoretically result in a local population shift. Despite the potential for additional industrial development in the vicinity of the site, no reasonably foreseeable future actions have been identified that would interact with the proposed Project to generate cumulative adverse impacts on socioeconomic conditions in Augusta-Richmond County.
Environmental Justice	The proposed Project is anticipated to provide positive short- and long-term benefits to disadvantaged communities in the local area, and therefore have a direct, beneficial long-term impact on environmental justice and equity. No contribution to adverse cumulative impacts is anticipated.
Community Services	Construction crews, as well as permanent new employees, are expected to be drawn from local and regional residents and not constitute a notable permanent migration of workers and their families to the region. The increased burden on existing police, fire, emergency medical, and other community services during construction and operations of the proposed Project is expected to be negligible.
Wetlands and Floodplains	Syensqo is not aware of other planned development in the vicinity of the Project, but if impacts on wetlands would occur, they would be permitted and mitigated through the USACE process under §404 of the CWA. The USACE considers compensatory wetland mitigation at the watershed level to avoid/minimize the potential for a project to contribute to cumulative adverse impacts on wetlands.
Cultural Resources	No impacts are anticipated so no contribution to cumulative impacts is anticipated.
Air Quality	The proposed Project is in a heavy industrial zone with neighbors who may potentially expand their industrial or commercial operations. Syensqo is not aware of other planned industrial or commercial development in the vicinity of the proposed Project, and no reasonably foreseeable actions have been identified that would interact with the proposed Project to generate cumulative adverse impacts on air quality.
Greenhouse Gases	The Project would result in a net reduction of GHG; therefore, the impact on GHG emissions is long-term and beneficial. No contribution to adverse cumulative impacts is anticipated.

Resource Categories	Cumulative Impacts under the Proposed Project
Noise and Vibration	The proposed Project is in a heavy industrial zone with neighbors who may potentially expand their industrial or commercial operations. Syensqo is not aware of other planned industrial or commercial development in the vicinity of the proposed Project, and no reasonably foreseeable actions have been identified that would interact with the proposed Project to generate cumulative noise and vibration impacts.
Geology, Topography, and Soils	Syensqo's erosion and sediment control measures, including the BMPs, would confine impacts on soils to the footprint of the Project, minimizing the potential of the Project to contribute to cumulative adverse impacts.
Surface Water and Groundwater	Syensqo is not aware of other planned development in the vicinity of the Project, but if impacts on surface waters would occur, they would be permitted and mitigated through the USACE process under §404 of the CWA. The USACE considers compensatory stream mitigation at the watershed level to avoid/minimize the potential for a Project to contribute to cumulative adverse impacts on streams.
Vegetation and Wildlife	The vegetation and wildlife habitat within the Project Site are similar to the extensive acreage of upland pine-oak forest within this ecoregion, and no cumulative adverse impacts are anticipated.
Regulated Waste	Regulated waste would be responsibly managed in accordance with RCRA regulations, in the same manner as those at the existing Syensqo facility. No contribution to cumulative impacts is anticipated.
Utilities and Energy Use	Syensqo's existing facility and proposed Project would be served by existing utilities as normal course of business. No contribution to cumulative adverse impact is anticipated.
Transportation and Traffic	The existing roadways are sufficient to accommodate the anticipated increase in traffic without an overall cumulative impact.
Public and Occupational Health and Safety	Syensqo's existing HSE program addresses public and occupational health and safety. No contribution to cumulative impacts is anticipated.
Parks and Recreation	No impacts are anticipated so no contribution to cumulative impacts is anticipated.
Land Use	No impacts are anticipated so no contribution to cumulative impacts is anticipated.
Visual and Aesthetic Resources	No impacts are anticipated so no contribution to cumulative impacts is anticipated.

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Appendix A. Environmental Synopsis

Bipartisan Infrastructure Law Battery (BIL) Materials Processing and Battery Manufacturing DE-FOA-0002678

ENVIRONMENTAL SYNOPSIS
Bipartisan Infrastructure Law Battery (BIL) Materials Processing and Battery Manufacturing
DE-FOA-0002678

April 2023

National Energy Technology Laboratory
U.S. Department of Energy
Pittsburgh, PA
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CONTENTS

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INTRODUCTION

The United States Department of Energy (DOE or the Department) prepared this Environmental Synopsis pursuant to the Department's responsibilities under Section 216 of the DOE's National Environmental Policy Act (NEPA) Implementing Procedures set forth in 10 CFR Part 1021. This synopsis summarizes the consideration given to environmental factors and records that the relevant environmental consequences of reasonable alternatives were evaluated in the process of selecting awardees seeking financial assistance under The Office of Manufacturing and Energy Supply Chains and the Office of Energy Efficiency and Renewable Energy, which jointly issued the Funding Opportunity Announcement (FOA) DE-FOA-0002678 Bipartisan Infrastructure Law (BIL) Battery Materials Processing and Battery Manufacturing. Projects awarded under FOA-0002678 to be funded, in whole or in part, with funds appropriated by the Infrastructure Investment and Jobs Act[1], also more commonly known as the BIL. The BIL is a once-in-a-generation investment in infrastructure, which will grow a more sustainable, resilient, and equitable economy through enhancing U.S. competitiveness in the world, creating good jobs, and ensuring stronger access to these economic benefits for disadvantaged communities (DAC's). The BIL appropriates more than $62 billion to the DOE[2] to deliver a more equitable clean energy future for the American people by investing in American manufacturing and workers; expanding access to energy efficiency and clean energy for families, communities, and businesses; delivering reliable, clean, and affordable power to more Americans; and building the technologies of tomorrow through clean energy demonstrations.

The BIL will invest more than $7 billion in the batteries supply chain over the five-year period encompassing fiscal years (FYs) 2022 through 2026. This includes sustainable sourcing of critical minerals from secondary and unconventional sources, reducing the need for new extraction and mining; sustainable processing of critical minerals; and end-of-life battery collection and recycling. The activities to be funded under this FOA support BIL Sections 40207 (b) & (c) and the broader government-wide approach to upgrading and modernizing infrastructure, including by strengthening critical domestic manufacturing and supply chains to maximize the benefits of the clean energy transition as the nation works to curb the climate crisis and advance environmental justice. These BIL Sections are focused on:

- Creating and retaining good-paying jobs, where workers are properly classified as employees, free from discrimination and harassment, with a free and fair choice to join, form, or assist a union;
- Supporting inclusive and supportive workforce development efforts to strengthen America's competitive advantage based on innovation, efficiency, and a skilled and diverse workforce up and down the supply chain;
- Ensuring that the U.S. has a viable battery materials processing industry to supply the North American battery supply chain;

1. Infrastructure Investment and Jobs Act, Public Law 117-58 (November 15, 2021).

2. U.S. Department of Energy. November 2021. "DOE Fact Sheet: The Bipartisan Infrastructure Deal Will Deliver For American Workers, Families and Usher in the Clean Energy Future." https://www.energy.gov/articles/doe-fact-sheet-bipartisan-infrastructure-deal-will-deliver-american-workers-families-and-0

- Expanding the capabilities of the U.S. in advanced battery manufacturing;
- Enhancing national security by reducing the reliance of the U.S. on foreign competitors for critical materials and technologies;
- Enhancing the domestic processing capacity of minerals necessary for battery materials and advanced batteries; and
- Ensuring that the U.S. has a viable domestic manufacturing and recycling capability to support and sustain a North American battery supply chain.

The DOE initially selected 21 projects under twelve topic areas of interest (AOI's) and provided cost-shared funding for project definition activities; all of the projects are subject to the completion of project-specific NEPA reviews. FOA-0002678 supports new, retrofitted, and expanded commercial-scale domestic facilities to produce battery materials, processing, and battery recycling and manufacturing demonstrations. As required by section 216, this synopsis does not contain business sensitive, confidential, trade secret or other information that statues or regulations would prohibit the DOE from disclosing. It also does not contain data or other information that may reveal the identity of the offerors.

BACKGROUND

The projects that will result from this FOA are cost-shared collaborations between the government and industry to increase investment in battery materials processing and battery manufacturing projects. In contrast to other federally funded activities, these projects are not federal projects; instead, they are private projects seeking federal financial assistance. Under the FOA, industry proposes projects that meet their needs and those of their customers while furthering the national goals and objectives of DOE. The successful development of battery materials processing and battery manufacturing projects is a key objective of the nation's effort to help mitigate the effects of climate change, gain energy independence, and bolster the domestic supply chain.

Awardees under this FOA would receive assistance using funds appropriated by the Infrastructure Investment and Jobs Act, Public Law 117-58 (November 15, 2021) also known as the Bipartisan Infrastructure Law (BIL). The activities to be funded under this FOA support BIL Sections 40207(b) & (c) and the broader government-wide approach to upgrading and modernizing infrastructure, including by strengthening critical domestic manufacturing and supply chains to maximize the benefits of the clean energy transition as the nation works to curb the climate crisis and advance environmental justice.

The applications reviewed under this FOA were selected for negotiations in October 2022. Twelve topic areas of interest (AOI's) were included in the FOA and each AOI outlined project objectives that were specific to that AOI. The twelve AOI's were separated according to the BIL sections 40207(b)(3)(A) and 40207(c)(3)(A):

Areas of Interest	Title
Battery Material Processing Grants pursuant to Section 40207(b)(3)(A)	
1	Commercial-scale Production Plants for Domestic Separation of Critical Cathode Battery Materials from Domestic Feedstocks
2	Commercial-scale Domestic Production of Battery-Grade Graphite from Synthetic and Natural Feedstocks
3	Commercial-scale Domestic Separation and Production of Battery-grade Precursor Materials (Open Topic)
4	Demonstrations of Domestic Separation and Production of Battery-grade Materials from Unconventional Domestic Sources
5	Demonstrations of Innovative Separation Processing of Battery Materials Open Topic
Battery Component Manufacturing and Recycling Grants pursuant to Section 40207(c)(3)(A)	
6	Commercial-scale Domestic Battery Cell Manufacturing
7	Commercial-scale Domestic Battery Cathode Manufacturing
8	Commercial-scale Domestic Battery Separator Manufacturing
9	Commercial-scale Domestic Next Generation Silicon Anode Active Materials and Electrodes
10	Commercial-scale Domestic Battery Component Manufacturing Open Topic
11	Commercial-scale Domestic Battery Recycling and End-of Life Infrastructure
12	Domestic Battery Cell and Component Manufacturing Demonstration Topic

AOI's 1–3 and 6–11 were directed to commercial level projects. AOI's 4, 5, and 12 were directed to demonstration level projects. Each level had different evaluation criteria and each application was evaluated against the criteria as outlined below:

A. Technical Review Criteria AOI's 1–3, 6–11 (commercial)

Criterion 1: Technical Merit, Project Management, and Impact (30%)

Criterion 2: Commercialization and Market Acceptance (30%)

Criterion 3: Cost Share (10%)

Criterion 4: Qualifications and Resources (10%)

Criterion 5: Equity Plan: Quality Jobs & Community Benefits (20%)

B. Technical Review Criteria AOI's 4, 5, and 12 (demonstration)

Criterion 1: Technical Merit, Project Management, and Impact (40%)

Criterion 2: Commercialization and Market Acceptance (20%)

Criterion 3: Cost Share (10%)

Criterion 4: Qualifications and Resources (10%)

Criterion 5: Equity Plan: Quality Jobs & Community Benefits (20%)

These criteria represented the total evaluation scoring. However, the selection official also considered program policy factors, in making final selections.

As a federal agency, DOE must comply with NEPA (42 U.S.C. §§ 4321 *et seq.)* by considering potential environmental issues associated with its actions prior to deciding whether to undertake these actions. The environmental review of applications received in response to FOA-0002678 was conducted pursuant to Council on Environmental Quality Regulations (40 Code of Federal Regulations (CFR) Parts 1500–1508) and DOE's NEPA Implementing Procedures (10 CFR Part 1021), which provide directions specific to NEPA in the context of procurement and financial assistance actions.

PURPOSE AND NEED

The overall purpose and need for DOE action pursuant to the Office of Manufacturing and Energy Supply Chains in collaboration with the Office of Energy Efficiency and Renewable Energy program and the funding opportunity under the BIL is to accelerate the development of a resilient supply chain for high-capacity batteries by increasing investments in battery materials processing and battery manufacturing projects. The BIL investments in the battery supply chain will include five main steps including: (1) raw material production, (2) materials processing including material refinement and processing, (3) battery material /component manufacturing and cell fabrication, (4) battery pack and end use product manufacturing, and (5) battery end-of-life and recycling. Projects selected are needed to meet the focus of the BIL sections: a) creating and retaining good-paying jobs; b) supporting inclusive and supportive workforce development efforts to strengthen America's competitive advantage; c) ensuring that the United States has a viable battery materials processing industry to supply the North American battery supply chain; d) expanding the capabilities of the United States in advanced battery manufacturing; e) enhancing national security by reducing the reliance of the United States on foreign competitors for critical materials and technologies; f) enhancing the domestic processing capacity of minerals necessary for battery materials and advanced batteries; and g) ensuring that the United States has a viable domestic manufacturing and recycling capability to support and sustain a North American battery supply chain.

DOE intends to further this purpose and satisfy this need by providing financial assistance under cost-sharing arrangements to this project and the other 20 projects selected under this FOA. This project and the other selected projects are needed to maximize the benefits of the clean energy transition as the nation works to curb the climate crisis. These projects would meet the objective.

ALTERNATIVES

The DOE received numerous eligible applications in twelve AOI's. AOI's 1 through 5 are under Battery Material Processing Grants pursuant to Section 40207(b)(3)(A); AOI's 6 through 12 are under Battery Component Manufacturing and Recycling Grants pursuant to Section 40207(c)(3)(A).

Detailed requirements for each AOI are listed in the FOA. Applications were accepted, reviewed, and initial selections were made; all of the projects are subject to the completion of project specific NEPA reviews. AOI's and number of initial selections are listed in the table below:

AOI	AOI Title	Number of initial Selections
1	Commercial-scale Production Plants for Domestic Separation of Critical Cathode Battery Materials from Domestic Feedstocks	4
2	Commercial-scale Domestic Production of Battery-Grade Graphite from Synthetic and Natural Feedstocks	3
3	Commercial-scale Domestic Separation and Production of Battery-grade Precursor Materials (Open Topic)	2
4	Demonstrations of Domestic Separation and Production of Battery-grade Materials from Unconventional Domestic Sources	1
5	Demonstrations of Innovative Separation Processing of Battery Materials Open Topic	1
6	Commercial-scale Domestic Battery Cell Manufacturing	0
7	Commercial-scale Domestic Battery Cathode Manufacturing	2
8	Commercial-scale Domestic Battery Separator Manufacturing	2
9	Commercial-scale Domestic Next Generation Silicon Anode Active Materials and Electrodes	2
10	Commercial-scale Domestic Battery Component Manufacturing Open Topic	1
11	Commercial-scale Domestic Battery Recycling and End-of Life Infrastructure	1
12	Domestic Battery Cell and Component Manufacturing Demonstration Topic	2

ENVIRONMENTAL REVIEW

DOE assembled environmental review teams to assess all applications that met the mandatory requirements. The review teams considered 20 resource areas that could potentially be impacted by the technologies and sites proposed for each project that was selected for negotiations. These resource areas consisted of:

- Aesthetics
- Air Quality
- Biological Resources
- Climate
- Community Services
- Cultural Resources
- Environmental Justice
- Floodplains
- Geology
- Ground Water
- Human Health and Safety
- Land Use
- Noise
- Socioeconomics
- Soils
- Surface Water
- Transportation and Traffic
- Utilities
- Wastes and Materials
- Wetlands

The review teams were composed of environmental professionals having expertise in the resource areas considered by the DOE and with experience evaluating the impacts of industrial facilities and energy-related projects. The review teams considered the information provided as part of each application, which included narrative text, worksheets, and the environmental information volumes for the sites proposed by the applicant. Reviewers conducted preliminary analyses to identify the potential range of impacts that would be associated with each application. In addition, reviewers identified both direct and indirect potential impacts to the resource areas mentioned above, as well as short-term impacts that might occur during construction and start-up, and long-term impacts that might occur over the expected operational life of the proposed project and beyond. The reviewers also considered any mitigation measures proposed by the applicant, and any reasonably available mitigation measures that may not have been proposed.

Reviewers assessed the potential for environmental issues and impacts using the following characterizations:

- **Beneficial** – Expected to have a net beneficial effect on the resource in comparison to baseline conditions.
- **None (negligible)** – Immeasurable or negligible in consequence (not expected to change baseline conditions).
- **Low** – Measurable or noticeable but of minimal consequence (barely discernable change in baseline conditions).
- **Moderate** – Adverse and considerable in consequence but moderate and not expected to reach a level of significance (discernable, but not drastic, alteration of baseline conditions).
- **High** – Adverse and potentially significant in severity (anticipated substantial changes or effects on baseline conditions that might not be mitigable).

For cases in which an application failed to provide sufficient information to support a determination among the above characterizations, the reviewers assigned one of the following characterizations:

- **Limited Concern** – The potential for substantial adverse impacts would be negligible to low based on background information about the resource area with respect to the geographic location of the project.
- **Elevated Concern** – The potential for substantial adverse impacts would be moderate to high based on background information about the resource area with respect to the geographic location of the project.

Applications in Response to the FOA

Based on the technologies and sites proposed, the applications for the FOA were preliminarily evaluated and reviewed by the NEPA compliance team. There were several applications that were deemed to not have sufficient information for assessment, and also site selections for some projects have not been finalized. Therefore, the summary in the below section is based on the information that was available. The following impacts by resource area were considered in the selection of candidates for award:

Aesthetics – Low to moderate impact would be expected as construction would primarily be conducted on existing industrial sites. Five projects were assessed to have a visual resource impact. Visual viewpoint changes are expected to occur at the sites as a result of project implementation and construction of the facilities. One project has overhead transmission lines.

Air Quality – Moderate impact would be expected as many facilities would have air controls and permitting in place, and new facilities will be putting controls in place as required by any obtained air permits. Fifteen projects had impacts, with several pollutants listed including: greenhouse gases (GHGs), particulate matter (PM), hazardous air pollutants (HAPs), volatile organic compounds (VOCs), nitrogen oxides (NOx), cadmium, nickel, lead, and combustion products. One project mentioned that BACT (best available control technology) would be installed, and one project mentioned MACT (maximum achievable control technology) to be installed (an iron-pellet gas purification and polishing system). One project stated that a Synthetic Minor Construction and Operations Air Permit would be required. Other impacts may be expected from transportation-related emissions or fugitive dust from construction activities.

Biological Resources – Low to moderate impact would be expected for three projects, with one project being located on the eastern edge of Great Salt Lake, and two projects being sited on greenfield sites. An additional three projects mention sites that were previously used for agriculture or grazing lands. The project located on one of the greenfield sites mentions that the site is pastureland, strands of forest, and wetlands/streams. The other greenfield site is located on farmland. Projects will be assessed for agricultural or natural habitat concerns, if any are identified.

Climate – Beneficial impacts would occur for all projects as batteries are critical to decarbonizing the economy through grid storage, resilience for powering homes and businesses, and electrification of the transportation sector, as noted in the FOA. GHG emissions from the projects would be minimal compared to these decarbonization efforts.

Community Services – Low impacts would be expected for the projects, though no impacts were specified in the review. Generally, projects anticipating a larger temporary workforce during construction would be expected to place a higher demand on community services – particularly in smaller, more rural communities where currently existing community services are more limited.

Cultural Resources – Moderate impacts would be expected for five projects, with several being sited next to railways or on greenfield sites. One project noted that Tribal Nations, U.S. Fish and Wildlife Service, and U.S. Army Corps of Engineers consultations will all be needed. It is expected that Section 106 regulations will be followed on all projects. Bureau of Land Management (BLM) and Department of Defense (DOD) cooperating agencies will be needed for one other project. One project is in proximity to an airport, and another project is located near a major railyard. BLM permitting is expected for two projects.

Environmental Justice (EJ) – The EJ impacts should be beneficial for the projects. Through the Administration's Justice40 Initiative, 40 percent of the overall benefits of this FOA should flow to DAC's, as listed in the Justice40 guidance document and the FOA[3]. EJ impacts were expected for four of the projects, yet EJ benefits will be considered for all projects under the Juctice40 initiative. Under Justice40 the benefits include (but are not limited to) measurable direct or indirect investments or positive project outcomes that achieve or contribute to the following in DAC's: (1) a decrease in energy burden; (2) a decrease in environmental exposure and burdens; (3) an increase in access to low-cost capital; (4) an increase in job creation, the clean energy job pipeline, and job training for individuals; (5) increases in clean energy enterprise creation and contracting (e.g., minority-owned or diverse business enterprises); (6) increases in energy democracy, including community ownership; (7) increased parity in clean energy technology access and adoption; and (8) an increase in energy resilience. Environmental and human health of the DAC's will be considered under Executive Order 12898 — Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, as required for projects.

Floodplains – Floodplains impact for the projects are low. There are four projects with Floodplains concerns, with one of the projects below the 500 Year Flood Plain (0.2-percent-annual-chance).

Geology – Geology impacts would be low to moderate for the projects. The possibility of extraction of economic minerals for battery manufacturer should be considered for relevant projects. One project has backfilled coal mine pits and spoil piles. One project is located on an old mine site. If geology is undisturbed, no additional impacts would be expected.

Ground Water – Ground Water impacts for the projects would be low. One project has a groundwater concern. Ground water impact from metals/chemicals or wastes could be of note for the projects, though containment measures would be in place as required for permitting. It is unknown if projects own any groundwater supply wells. Stormwater runoff will be managed in accordance with all relevant requirements, if required by projects.

Human Health and Safety – Impacts will be moderate. Five projects cited a concern. One project has a sensitive receptor (daycare) 2,500 feet from the corner of the lot. One project is upgrading its fire safety equipment, and fire safety and coordination with local fire departments is likely to be considered for all projects. Low to moderate impacts may also be considered during both construction and operations of the facilities. The level of risk is generally related to the size and

[3] The Justice40 initiative, created by E.O. 14008, establishes a goal that 40percent of the overall benefits of certain federal investments flow to (DAC's). The Justice40 Interim Guidance provides a broad definition of DAC's (Page 2): https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf. The DOE, Office of Management and Budget (OMB), and/or the Federal Council for Environmental Quality (CEQ) may issue additional and subsequent guidance regarding the designation of DAC's and recognized benefits under the Justice40 Initiative.

complexity of the planned construction. Of note would be any concerns for handling of chemicals and metals, including minimizing exposure and prevention of spills. Safe operating practices will be implemented for all projects, and compliance with federal, state, and local regulations and standards as well.

Land Use – Low to moderate impacts would be expected for all projects due to construction within existing facilities or on a compatible nearby site. Two sites are greenfield sites, but many are already existing industrial sites. Three sites have not yet been selected. BLM permits are needed for two projects (three sites), with one BLM site also consulting with the DOD. One project is consulting with Tribal Nations, U.S. Fish and Wildlife Service, and U.S. Army Corps of Engineers. Clearance of land, stormwater runoff best management practices, utility line installations, and rail lines will be considered as needed.

Noise – Noise impacts would be low to moderate. One project specifically cited noise impact. During the project construction phases, noise levels will increase, but would be temporary and ending after construction. All project facilities conducting manufacturing and/or recycling activities may have noise, but much will occur within closed buildings. Any projects located near neighboring buildings may have noise impacts to consider for those near the site if outdoor noise continues past construction phases.

Socioeconomics – Beneficial impacts would be expected for all projects. Seven projects cited socioeconomic and/or EJ concerns. All projects would provide some additional employment during construction and operations, with most opportunities occurring within the local area DAC's. Tax revenue generation and direct and indirect spending in the local economy is expected for the projects.

Soils – Low impacts would be expected for projects requiring land disturbance, including two greenfield sites. Five projects have sites that are adjacent to agricultural activity, with one converting existing pastureland, and one possibly converting farmland. Construction activities could result in a potential for soil erosion, but appropriate mitigation would be implemented as necessary, such as run-off control, silt fences, and stormwater detention facilities.

Surface Water – Impacts would be low to moderate. Battery Manufacturing and recycling facilities would potentially have water influent and wastewater effluent requirements to minimize the impacts with municipalities treating water. One project noted an effluent line along an existing roadway with a connect to the Mississippi River levee and River. Stormwater controls could be used during construction and operation. Controls could be used on hazardous liquids, if any, to minimize impacts.

Transportation and Traffic – Moderate impacts are expected with eight projects citing impacts. Five projects noted that they are cited near railways, railway right of way, or may need to recommission/use railway. Transportation of construction workforce to the site would be temporary. Construction access roads may be considered for projects. Transportation of operations workforce would be considered. Recycling and manufacturing facilities would also require trucking or railcar transport of materials and wastes in and out of the facility.

Utilities – Moderate impacts would be expected for greenfield sited projects resulting from the need for new energy infrastructure for manufacturing and recycling. Recycling and manufacturing facilities may have need for water, electricity, steam, wastewater, industrial gases and/or natural

gas, or other for the processes and facilities. Availability and capacity of utilities and anticipated infrastructure needs will be evaluated for projects.

Wastes and Materials – Impacts would be moderate to high. Sixteen projects have waste streams impact and hazardous material storage and use impacts. Three projects have a Resource Conservation and Recovery Act (RCRA) designation, and several others have hazardous chemicals. One project is a large quantity generator (LQG). The nature of the manufacturing and/or recycling for Batteries Materials and Processing Manufacturing and Recycling will require diligence in hazardous/non-hazardous waste management practices and applicable permitting. Transportation of waste to landfills to be considered, if applicable, to projects.

Wetlands – Wetlands impacts would be low to moderate. Four projects noted wetlands concerns, which could be avoided, or controls used to minimize impacts resulting from project construction. The extent and the conditions of the wetlands on each site will be addressed during construction and/or operations as required. One project noted that wetlands will be avoided. One project has wetlands and streams on site. Appropriate wetland mitigation measures will be implemented for unavoidable impacts.

CONCLUSION

The alternatives available to DOE from applications received in response to the FOA provided reasonable alternatives for accomplishing the Department's purpose and need to satisfy the responsibility imposed on the Department to carry out a program to bolster the nation's battery material production and battery production.

An environmental review was part of the evaluation process of these applications. DOE prepared a critique containing information from this environmental review. That critique, summarized here, contained summary as well as project-specific environmental information. The critique was made available to, and considered by, the selection official before selections for financial assistance were made.

DOE determined that selecting twenty-one applications in response to the FOA would meet the Department’s purpose and need. DOE selected twenty-one projects for awards of financial assistance:

- Project Recipient (City, State) project located in City, State. Construct a new, commercial-scale U.S.-based lithium materials processing plant, sited next to existing facility, that uses sustainably extracted spodumene minerals from the site’s lithium mine to produce battery grade lithium hydroxide for domestic manufacturing of lithium-ion batteries for 750,000 vehicles in the U.S. market. The DOE has determined that an environmental assessment (EA) is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Construct a battery minerals processing facility to process nickel ore in concentrate (nickel/iron and copper) from economically viable sources in support of a new domestic cathode supply chain. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;

- Project Recipient (City, State) project located in City, State. Plan, design, and construct a cathode active materials (CAM) plant including a manufacturing building and the processing equipment necessary to convert precursor materials into CAM, the highest value component in a lithium-ion battery. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Design a sustainable lithium hydroxide facility to produce 30,000 metric tons per year of lithium hydroxide for the domestic battery and electric vehicle (EV) market, doubling the lithium hydroxide production capacity currently available in the U.S. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Design, construct and commission a graphite anode powder plant over a five-year period. Testing of a pilot manufacturing plant will occur site I in City, State, and graphitization at site II City, State, during the first 3 years of the project. Approximately 35,000 tons per annum of new synthetic graphite anode material capacity for lithium-ion batteries will be used in electric vehicles and critical energy storage applications. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Expand the production capacity of the integrated milling, purification, coating, and surface treatment operation producing on-specification active anode material (AAM), using natural graphite from an overseas graphite operation. Construction of a new 11,250 metric tons per annum (tpa) AAM facility is underway to serve as the only vertically integrated and large-scale natural graphite AAM producer outside China and the first large-scale natural graphite AAM producer in the U.S. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Building its first mass production site in the U.S., which will produce 10,000 metric tons per year of battery grade synthetic graphite. The project will build a new plant near City to produce 30,000 metric tons per year of graphite targeted at the EV industry. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Will build a new battery-grade polyvinylidene fluoride (PVDF) facility in City, State, to supply the needs of the North American EV and stationary energy storage market. Potential to provide enough PVDF to supply more than 5 million EV batteries per year at full capacity. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Proposes to build the first U.S. manufacturing plant for lithium hexafluorophosphate (LiPF6) on the grounds of the company's existing fluorochemical production site and produce up to 10,000 metric tonnes (MT) of LiPF6 per year, which is sufficient to support domestic production of more than a million full EVs. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Proposes to build and operate a commercial-scale facility to implement its novel process for manufacturing battery

cathode grade lithium hydroxide (LiOH) (5,000 MT (metric tonnes) LiOH/year, with capacity for 30,000 MT LiOH/year) commercial processing plant from unconventional Nevada-based lithium-bearing sedimentary resources (10,000 acres). The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;

- Project Recipient (City, State) project located in City, State. Proposes to demonstrate production of lithium at commercially relevant scales using a proprietary technology (using ion-exchange beads) for lithium extraction from domestic brine resources at commercially relevant scales. The project would include 4 pilot units in State and State. Each site would require 5–7 acres for demonstrations lasting 10 months to 3 years before demobilization. Additional work would be manufacturing ceramic beads at 2 existing facilities, one of which will require modification and equipment to support the new production. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Proposes to establish industrial scale U.S. production capacity of sustainable, low-cost precursor cathode materials by integrating the separation of critical cathode materials from spent lithium-ion batteries (LIBs) with the production of both precursor cathode active materials (pCAM) and metal salts to support domestic production of cathode active material (CAM). CAM can then be used in new LIBs for EVs and energy storage systems (ESS). It will produce enough material to supply over 250,000 EVs annually. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Proposes to build a plant to produce high quality lithium iron phosphate (LFP) cathode powder for the global lithium battery industry using primarily a domestic supply chain. Using its own process technology and by acquiring licenses for certain other commercially proven processes, the plant will have two production lines built in dual phases, with each line capable of producing 15,000 tonnes per year of LFP powder. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project
- Project Recipient (City, State) project located in City, State. Proposes to build a separator facility capable of supplying 19 gigawatt-hour (GWh) of electrovoltaic batteries, including their existing 2 GWh battery plant. The project would construct new buildings, tanks, and associated equipment. The area is a greenfield site that was previously used for agriculture and is currently being developed as an industrial park. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. The proposed project would construct new separator plants with capacity of 1-1.8 billion m^2 per year, enough material for ~1.4 million EVs. The separator plants would include the installation of high-capacity battery separator lines. Finalized site selection is still underway. The DOE has not determined the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Build-out of a 600,000-square-foot factory that will produce breakthrough lithium-ion anode materials. The project is expected to begin production of Recipient's proprietary silicon anode material in

2025, with full production of 20 GWh equivalent of material at the project's conclusion in 2026. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;

- Project Recipient (City, State) project located in City, State. Proposes to design and construct two 2,000 tonnes/year silicon-carbon anode material factories, also known as "modules." The proposed project plans to construct these modules as part of an expansion of a previously planned project. The proposed project will involve design and construction of two modules. The proposed project will also involve the construction of support facilities for all modules. These two modules and support facilities will be constructed on a planned, but undeveloped portion of the proposed project site. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Proposes to set up an advanced prelithiation and lithium anode manufacturing facility to accelerate the transition to next-generation lithium-ion (Li-ion) batteries and enable the development of a robust U.S. battery component supply chain. The proposed facility will support industrial-scale production of advanced lithiated anodes for multiple battery cell makers and automobile manufacturers. Finalized site selection is still underway. The DOE has not determined the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Proposes to expand and upgrade recipient's existing lithium-ion recycling facility. Collect, disassemble, shred, and upgrade the critical minerals present from tens-of-thousands of tons of lithium-ion batteries for reuse in new lithium-ion batteries. The project requires the physical modification of existing buildings, new construction, and ground-disturbing activities on a portion of the project site. The DOE has determined that an EA is the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Proposes to demonstrate the manufacturing of silicon nanowire anode technology at the component and cell level on multi-megawatt-hour-scale manufacturing lines that are comparable to those used in multi-GWh factories. Plans are to construct a new facility of about 120,000 square feet. Finalized site selection is still underway. The DOE has not determined the appropriate level of environmental review for the proposed project;
- Project Recipient (City, State) project located in City, State. Proposes to demonstrate the ability to domestically produce multiple battery chemistries namely NMC811 and LFP in a plant with the capacity of 3,000 tpa ready for production in 2025 scaling to 10,000 tpa in 2026. The demonstration plant will produce NMC811 generating zero waste and 70 percent less GHGs by using only 10 percent of the water and 30 percent of the energy versus traditional battery material production methods. The proposed new facility will be approximately 120,000 square feet in a zoned industrial park. Finalized site selection is still underway. The DOE has not determined the appropriate level of environmental review for the proposed project.

Appendix B. Consultation with Agencies and Tribal Nations

November 30, 2023

Christopher Nunn, State Historical Preservation Officer
Commissioner, Georgia Department of Community Affairs
60 Executive Park South, NE
Atlanta, GA 30329

SUBJECT: Consultation and Section 106 Compliance for the Solvay Sarsaparilla Project (DOE/EA-2237D)

Dear Mr. Nunn:

I previously spoke with you regarding a project that the U.S. Department of Energy, National Energy Technology Laboratory (NETL) proposes to fund.

NETL proposes to provide federal funding for the Solvay Sarsaparilla Project. The project would involve construction and operation of a chemical manufacturing facility for the production of polyvinylidene fluoride (PVDF) from 1-Chloro-1,1-difluoroethane (HCFC-142b) through various chemical reactions and separations.

The proposed facility would be located on an approximately 81-acre parcel (project site) located east of Clanton Road, south of Tobacco Road, in Augusta, Richmond County, Georgia, adjacent to and south of the existing Solvay Specialty Polymers facility (Figure 1). A portion of the project site was previously developed for industrial use. The project site is zoned Heavy Industrial and contains an existing rail spur. The project site is crossed by existing natural gas and electric utilities, which would serve the proposed facility.

Solvay would redevelop the project site to support the PVDF manufacturing process. Construction activities would include clearing and grading, pouring foundations, and location of utilities.

Solvay would install a primary process furnace and gas purification towers. This area would be approximately 285 ft L x 53 ft W x 150 ft H. There would be one primary building enclosing the main PVDF manufacturing plant and this building would be approximately 490 ft L x 240 ft W x 100 ft H. A recycle gas treatment system comprising of gas compression, liquefaction, and purification towers would be approximately 160 ft L x 60 ft W x 135 ft H (monomer building), and approximately 180 ft L x 60 ft W x 50 ft H (refrigeration unit). There is a utility (cooling tower and air compression) area measuring approximately 165 ft L x 165 ft W x 40 ft H and a wastewater treatment equipment area measuring approximately 165 ft L x 150 ft W x 40 ft H. These structures are shown on Figure 2, attached.

Construction activities are expected to take approximately 18 months to complete.
The Georgia Natural, Archaeological, and Historic Resources GIS database (GNAHRGIS) was consulted in order to identify archaeological and historic resources that have previously been

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Harry.taylor@netl.doe.gov Phone (304)285-5091 www.netl.doe.gov

recorded that are Listed or eligible or may be eligible for the National Register of Historic Places (NRHP).

There are no previously recorded archaeological sites within the boundaries of the project area and none within a 1-km radius. Background review identified eight historic structures within a 1-km radius of the project site. All but one of the structures are associated with the Gracewood State School and Hospital, now known as East Central Regional Hospital, Gracewood Campus. The Gracewood Campus was formed in 1919 as a training school for individuals with mental disorders. The campus expanded in the 1920s by purchasing an adjacent orphanage. The campus expanded again in the 1950s to include surrounding farmland.

Most of the historic structures associated with the Gracewood Campus have been recorded, including those within a 1-km radius of the project site, as listed in Table 1, below, and shown in Figure 3, attached. However, there has been no formal recommendation of the individual structures or the campus as an historic district. Three of the structures were recorded as having characteristics that appear to meet the eligibility criteria for inclusion in the National Register of Historic Places (NRHP).

Parcel information indicates there are a number of houses over 50 years old northwest of the project site along Tobacco Road and immediately west of the project site along Clanton Road. These houses are at an age where they could be eligible for the NRHP. They have not been surveyed.

Table 1, Cultural Resources Within a 1-km Radius of the Project Site

Resource No.	Description	Date	NRHP Eligibility
55891	House/Georgian Cottage	1850	Appears to meet NRHP criteria
55892	House/Vernacular	1874	Unassessed
55893	House/Folk Victorian	1890	Appears to meet NRHP criteria
55894	House/Craftsman	1919	Appears to meet NRHP criteria
55904	House/Craftsman	1910	Unassessed
56068	Hay Barn	1955	Unassessed
56069	Staff Housing	1935	Unassessed
56070	Storage Building	1945	Unassessed

Because of the distance between the proposed project and the historic structures; the height of the intervening forest, and the industrial nature of the existing, adjacent facility, it is believed that potential impacts on the viewshed of these historic structures would be minimal.

Based on the scope of the proposed Solvay project, NETL plans to prepare an Environmental Assessment (EA) (DOE/EA- 2237D) in accordance with requirements of the National Environmental Policy Act (NEPA) to analyze, document, and disseminate information on the potential environmental and cultural consequences of the project.

Information that you provide will be incorporated and appropriately addressed in the EA. Moreover, when the Draft EA is circulated for public comment, your organization will be sent an electronic and hard copy where you may provide additional comments.

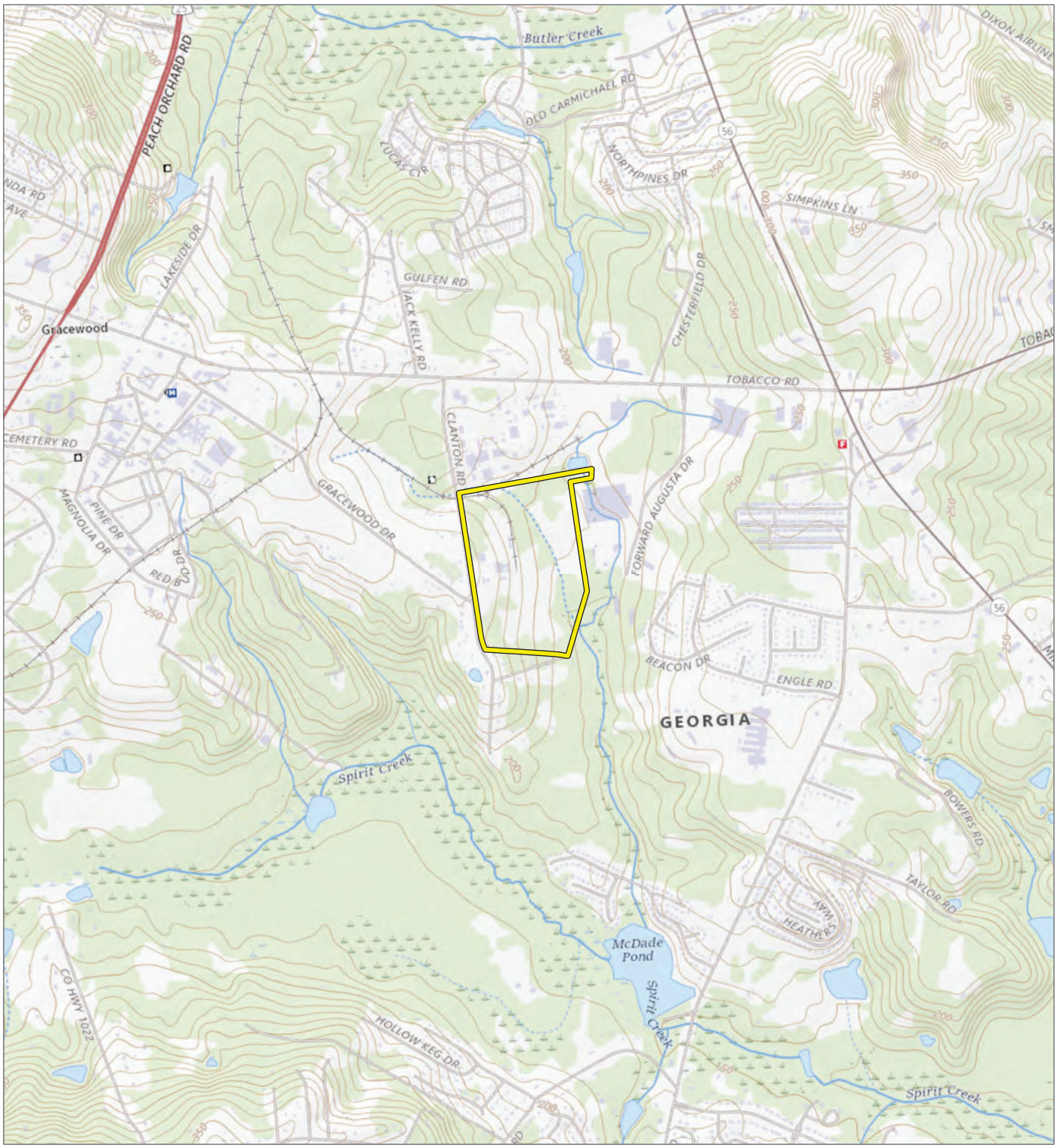
If you have any questions concerning the project, please contact me. I look forward to working with you.

Sincerely,

Harry E. Taylor, P.E.
NEPA Compliance
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26505
304.285.5091
harry.taylor@netl.doe.gov

cc: Jennifer Dixon, Division Director/DSHPO Historic Preservation Division

Attachments:
Figure 1 Site Location Map
Figure 2 Site Layout Map
Figure 3 Cultural Resources Map
Environmental Review Form



PROJECT SITE

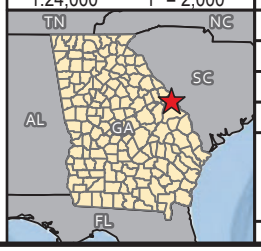
BASE MAP: USGS/TNM "USA TOPO" ONLINE SERVICE LAYER
DATA SOURCES: TRC, USGS

N

0 1,000 2,000

FEET

1:24,000 1" = 2,000'



PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

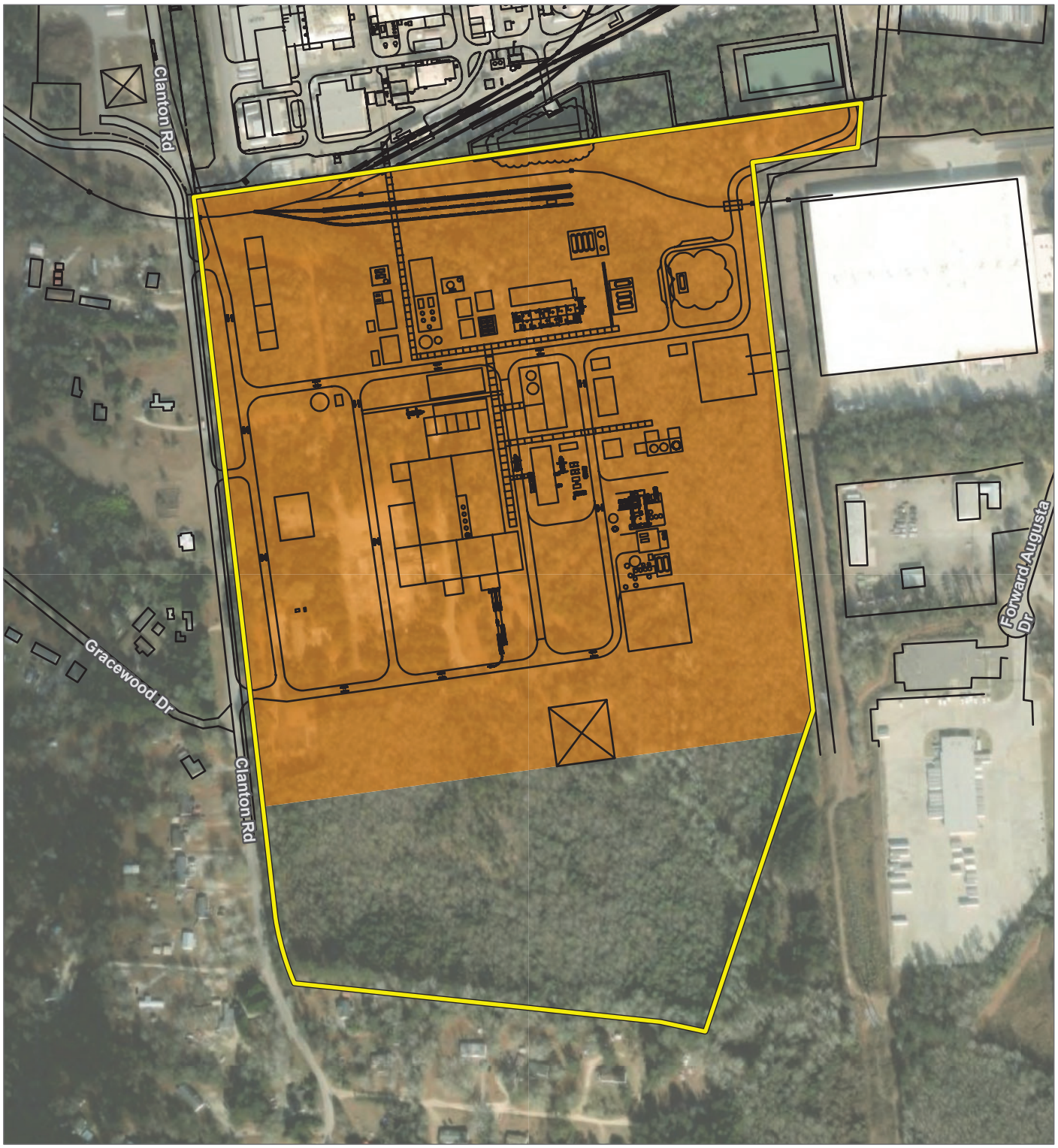
SITE LOCATION MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 1**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX



PROJECT SITE

APPROXIMATE PROJECT LAYOUT/DESIGN

APPROXIMATE LIMIT OF DISTURBANCE

N

0 200 400

FEET

1:4,800 1" = 400'

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER
DATA SOURCES: TRC, ESRI, RICHMOND COUNTY BOARD OF ASSESSORS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

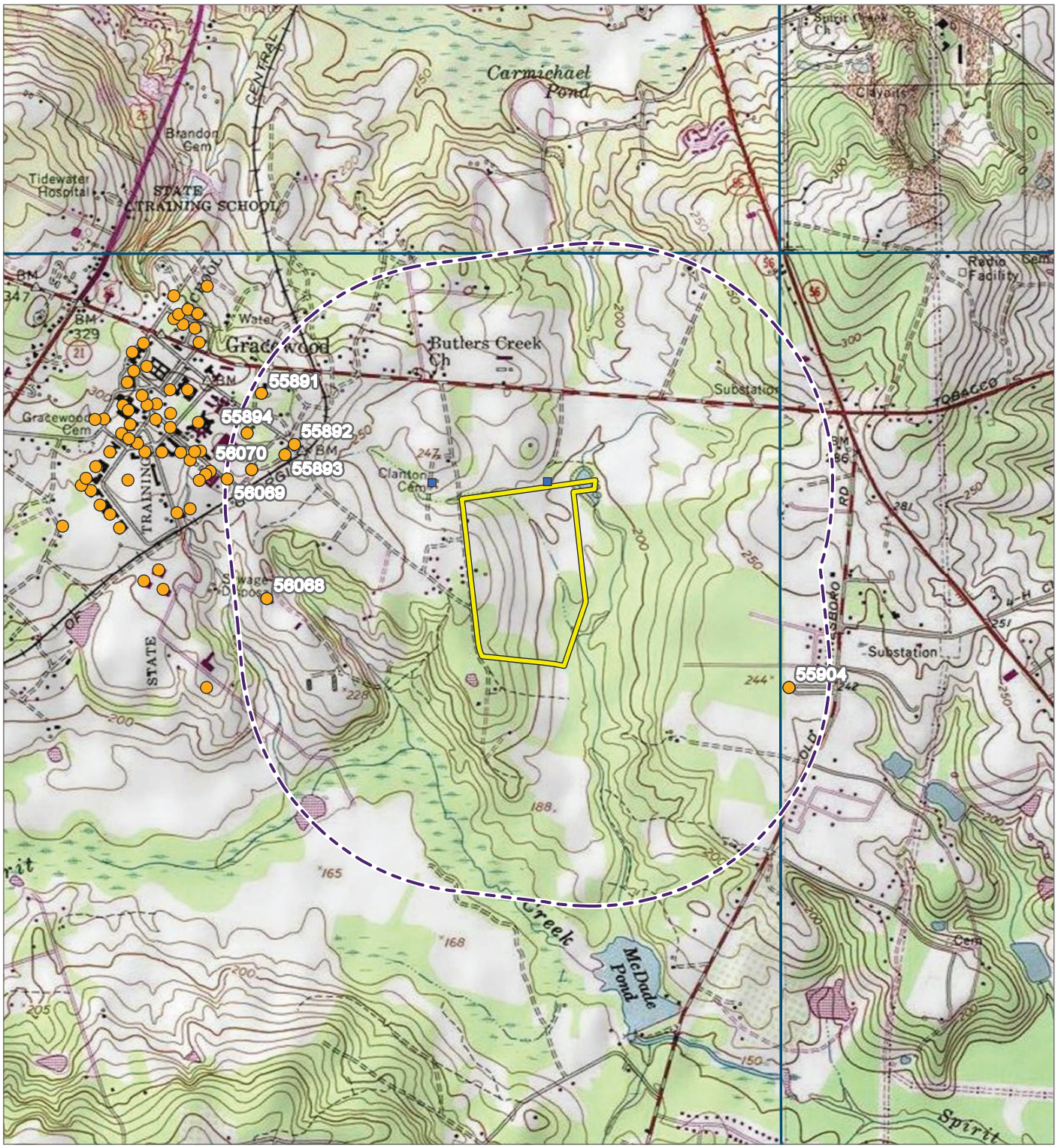
SITE LAYOUT MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 2**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX



PROJECT SITE
CULTURAL RESOURCE
APPROXIMATE CEMETERY LOCATION
1-KM STUDY BUFFER
USGS 7.5' QUADRANGLE BOUNDARY

0 1,000 2,000
FEET
1:24,000 1" = 2,000'

BASE MAP: USGS/TNM "USA TOPO" ONLINE SERVICE LAYER
DATA SOURCES: TRC, USGS

PROJECT: SOLVAY - SARSAPARILLA

TITLE: CULUTRAL RESOURCES MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		FIGURE 3
DATE:	NOVEMBER 2023		

TRC
4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX

Georgia® Department of Community Affairs
HISTORIC PRESERVATION DIVISION

Environmental Review Form

At a minimum, the Historic Preservation Division (HPD) requires the following information in order to review projects in accordance with applicable federal or state laws. Please note that the responsibility for preparing documentation, including items listed below, rests with the federal or state agency or its designated applicant. *HPD's ability to complete a timely project review largely depends on the quality and detail of the material submitted. If insufficient information is provided, HPD may need to request additional materials, which will prolong the review process. For complex projects, some applicants may find it advantageous to hire a preservation professional with expertise in history, architectural history, and/or archaeology, who would have access to the Georgia Archaeological Site Files and an understanding of HPD's publicly available files.*

THERE IS A 30-DAY REVIEW PERIOD FROM THE DATE HPD RECEIVES THE SUBMITTAL.
SHOULD ADDITIONAL INFORMATION BE REQUESTED, PLEASE NOTE THE 30-DAY PERIOD RESTARTS.

I. General Information

A. Project Name: Solvay Sarsaparilla Project

Project Address: East of Clanton Road, south of Tobacco Road, in Augusta, Georgia, adjacent to and south of the existing Solvay Specialty Polymers facility.

City: Augusta County: Richmond

B. Federal Agency Involved: Department of Energy

State Agency Involved *(if applicable)*: _____

C. Agency's Involvement *(check all that are applicable)*:

- ☒ Funding (grant, loan, etc.)
- ☐ License/Permit
- ☐ Direct/Agency is performing the action
- ☐ Unknown
- ☐ Other, please explain: _____

D. Type of Review Requested:

- ☒ Section 106 of the National Historic Preservation Act (Federal agency involvement)
- ☐ Section 110 of the National Historic Preservation Act (Federally owned properties)
- ☐ Georgia Environmental Policy Act (GEPA; State agency involvement)
- ☐ State Agency Historic Property Stewardship Program/State Stewardship (State owned properties)
- ☐ Unknown

E. Contact Information: X **Applicant** ☐ **Consultant**

Name/Title/Company: Solvay Specialty Polymers

Address: 3702 Clanton Rd

City/State/Zip: Augusta, GA 30906

Phone: 225 240 3718 Email: phillip.mccray@solvay.com

Agency Contact Info *(either State or Federal, according to review type)*:

Name/Title/Agency: Harry E. Taylor/NEPA Compliance/U.S. Department of Energy

Address: 3610 Collins Ferry Road, Building 26, Room 102, MS 107

City/State/Zip: Morgantown, West Virginia 26505

Phone: 304.285.5091 Email: Harry.Taylor@netl.doe.gov

II. Project Information

A. Project Type:

- ☐ Road/Highway Construction or Improvements
- ☐ Demolition
- ☐ Rehabilitation
- ☐ Addition to Existing Building/Structure
- ☒ New Construction
- ☐ Relicensing
- ☐ Utilities/Infrastructure
- ☐ Unknown
- ☐ Other: _____

B. Project Description and Plans This should include a *detailed* **scope of work**, including *any* actions to be taken in relation to the project, such as all aspects of new construction, replacement/repair, demolition, ground disturbance, and all ancillary work (temporary roads, etc.), as applicable. Attach additional pages if necessary. If a detailed scope of work is not available yet, please explain and include all preliminary information:

See attached letter.

C. Land Disturbing Activity This should include a detailed description of all horizontal and vertical ground disturbance, such as haul roads, cut or fill areas, excavations, landscaping activities, ditching, utility burial, grading, water tower construction, etc., as applicable:

See attached letter

D. Has this identical project or a related project been previously submitted to HPD for review? YES ◯ NO ◉
If yes, please enclose a copy of HPD's previous response

E. Is this project also being reviewed under a tax incentive program administered through HPD? YES ◯ NO ◉

F. Is this review request in order to satisfy an application requirement, such as for a grant? YES ◉ NO ◯
****If yes, are project plans/scope of work available yet?*** YES ◉ NO ◯
****If yes, please enclose a copy of the project plans/scope of work as outlined in II.B and II.C above***

III. Site Information

A. In the past this property has been used for (select all that apply):

Mining
Timbering
Road Construction
Housing
Landfill
Commercial
Industrial

Other (explain):

A. Describe what currently exists on the property today and give approximate construction dates for existing buildings along with any known history (i.e. buildings, parking lot, outbuildings, woods, grass, garden, etc.):

See attached letter.

IV. Cultural Resources

Background research for previously identified properties within the project area may be undertaken at HPD, including National Register of Historic Places files, county and city surveys, and identified sites files. Additionally, research at the Georgia Archaeological Site Files (GASF) in Athens may be undertaken by a qualified archaeologist or site file staff. To make a research appointment or find contact information for GASF, please visit our website. **Please note that as part of the review process, HPD may request an archaeological survey or resource identification.**

A. To your knowledge, has a cultural resources assessment or a historic resources survey been conducted in the project area? YES_____ NO_(●)_ DO NOT KNOW_( )_(see: http://www. https://georgiashpo.org/surveys)

If yes, provide the title, author, and date of the report:

_____

_____

B. Area of Potential Effect (APE)

The APE is the geographic area or areas within which a project may cause changes (or effects). These changes can be direct (physical) or indirect (visual, noise, vibrations) effects. The APE varies with the project type and should factor in topography, vegetation, existing development, physical siting of the project, and existing/planned development. For example:

If your project includes...	*Then your APE would be...*
Rehabilitation, renovation, and/or demolition of a building or structure, or new construction	the building or property itself and the surrounding properties/setting with a view of the project
Road/Highway construction or improvements, streetscapes, pedestrian or bicycle facilities	the length of the project corridor and the surrounding properties/setting with a view of the project
Above ground utilities, such as siren/radio towers, water towers, pump stations, retention ponds, etc.	the area of ground disturbance and the surrounding properties/setting with a view of the project
Underground utilities	the area of ground disturbance

Based on this information, **identify the APE for your project, similar to above AND describe what exists within it.** Please provide approximate construction dates for existing buildings within the APE (ie. is it modern or historic residential or commercial development, undeveloped, etc.):

See attached letter.

_____

_____

C. Is the project located within or adjacent to a National Register of Historic Places (NRHP) listed or eligible historic property or district or a locally designated property or district?

YES _( )_ NO _(●)_ DO NOT KNOW _( )_

If yes, please provide names: _____

D. Within the project APE as identified in IV.B, are there any other buildings or structures that are 50 years old or older?

YES _(●)_ NO _( )_ DO NOT KNOW _( )_

If yes, provide current photographs of each building or structure and key the photos to a site map.

E. Are any of the buildings or structures identified in IV.D listed or eligible for listing in the NRHP?

YES _( )_ NO _( )_ DO NOT KNOW _(●)_

If yes, please identify the properties (by name or photo #).

F. Effects Information

1. Does the project involve the rehabilitation, renovation, relocation, demolition or addition to any building or structure that is 50 years old or older? YES _( )_ NO _(●)_

2. Will the project take away or change anything within the apparent or existing boundary of any of these historic properties? YES _( )_ NO _(●)_

If yes, please explain: _____

3. Will the project change the view from or of any of these properties? YES ◉ NO ○
**If yes, please explain:* See attached letter.

4. Will the project introduce any audible or atmospheric elements to the setting of any of these historic properties (such as light, noise, or vibration pollution)? YES ○ NO ◉
**If yes, please explain:* _____

5. Will the project result in a change of ownership for any historic properties? YES ○ NO ◉
**If yes, please explain:* _____

V. Required Materials (Submittal Checklist)

- ☒ Complete Environmental Review Form
  - Include all contact information as HPD will respond via email to the submitter.
- ☒ Map indicating:
  - Precise location of the project (USGS topographic map preferred: http://www.digital-topo-maps.com/ [1]).
  - In urban areas, please also include a city map that shows more detail
  - Boundaries of the APE as noted in section II above
  - Location of resources indicated in section IV.C through E
- ☒ Detailed project plans to supplement section I.F, including (if applicable and available):
  - Detailed scope of work
  - Site plans (before and after)
  - Project plans
  - Elevations
- ☐ High-resolution current color photographs (max 2 photos per page) illustrating:
  - The project area, the entire APE as defined in section IV, and resources indicated in section IV.C through E
  - Any adjacent properties that are within the APE, with clear views of buildings or structures, if applicable
  - If the project entails the alteration of existing historic structures, please provide ***detail*** photographs of existing conditions of sites, buildings, and interior areas/materials to be impacted
  - *****Google Street view and publicly available Tax Assessor images will not be accepted***
- ☐ Photography key (map or project plans can be used) indicating:
  - Location of all photographs by photo number
  - Direction of view for all photographs
- ☒ Any available information concerning known or suspected archaeological resources in the APE.

Please submit this project for review electronically via HPD's External User Portal.

Answers to Frequently Asked Questions, including details related to HPD's External User Portal, can be found on our website:
https://www.dca.ga.gov/georgia-historic-preservation-division/review-compliance

Specific questions regarding this form may be directed to HPD's Environmental Review Program at ER@dca.ga.gov.

Limited email submission of project materials may be available if technical issues prevent applicant use of HPD/ER's external user portal. Contact ER program staff at ER@dca.ga.gov for further details.

HPD no longer accepts project materials for review via mail, with the exception of archival mitigation documentation, as applicable.

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[1] *Please note, this is not a complete list of websites with topographic map information. This website is not controlled by HPD and HPD bears no responsibility for its content.*

Brian P. Kemp
Governor

Georgia® Department of Community Affairs
HISTORIC PRESERVATION DIVISION

Christopher Nunn
Commissioner

January 3, 2024

Harry Taylor
Project Engineer
U.S. Department of Energy
3610 Collins Ferry Road
Morgantown, West Virginia 26505

RE: Construct Chemical Manufacturing Facility, Clanton Road, Tobacco Road, Augusta Richmond County, Georgia
HP-231204-007

Dear Mr. Taylor:

The Historic Preservation Division (HPD) has received the information submitted concerning the above referenced project. Our comments are offered to assist the U.S. Department of Energy (DOE) and its applicants in complying with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

The subject project consists of constructing a manufacturing facility of unknown design, size, scale, massing, and height on an approximately 81-acre site on vacant portions of three (3) assembled Richmond County parcels in Augusta, including parcel 1690007020 located at 3750 Clanton Road, parcel 1690025000 located at 3756 Clanton Road, and parcel 1560102000 located at 3734 Clanton Road. HPD notes GNAHRGIS resources 55891/2016 Tobacco Road, 55892/4105 Gracewood Drive, 55893/4102 Gracewood Drive, 55894/Azalea Circle, 55904/3815 Old Waynesboro Road, 56068/Pecan Lane, 56069/Azalea Circle, and 56070/Azalea Circle, identified in the materials provided for review, are outside of the proposed project's area of potential effect (APE). Additionally, HPD finds multiple other historic resources within the proposed project's APE, some of which may be eligible for listing in the National Register of Historic Places (NRHP). However, it is HPD's opinion that the subject project, as proposed, will have **no adverse effect** to historic properties within its APE, as defined in 36 CFR Part 800.5(d)(1), due to the scope and location of the work, existing modern intrusions, and previous ground disturbance.

This letter evidences consultation with our office for compliance with Section 106 of the NHPA. It is important to remember that any changes to this project as it is currently proposed may require additional consultation. HPD encourages federal agencies and project applicants to discuss such changes with our office to ensure that potential effects to historic properties are adequately considered in project planning.

Please refer to project number **HP-231204-007** in any future correspondence regarding this project. If we may be of further assistance, please contact Olivia Kendrick, Environmental Review Historian, at Olivia.Kendrick@dca.ga.gov or (404) 486-6425 or Noah Bryant, Compliance Review Archaeologist, at Noah.Bryant@dca.ga.gov or (404) 679-0649.

Sincerely,

Stacy Rieke, MHP
Program Manager
Environmental Review & Preservation Planning

SMR/olk

cc: Anne Floyd, Central Savannah River Regional Commission
Tina Hutcheson, DCA Regional Services, Region 7

November 21, 2023

Wilson Yargee, Chief
Alabama Quassarte Tribal Town
P.O. Box 187
Wetumka, OK 74883

SUBJECT: Tribal Consultation and Section 106 Compliance for the Solvay Sarsaparilla Project (DOE/EA-2237D)

Dear Chief Yargee:

I previously spoke with you regarding a project that the U.S. Department of Energy, National Energy Technology Laboratory (NETL) proposes to fund.

NETL proposes to provide federal funding for the Solvay Sarsaparilla Project. The project would involve construction and operation of a chemical manufacturing facility for the production of polyvinylidene fluoride (PVDF) from 1-Chloro-1,1-difluoroethane (HCFC-142b) through various chemical reactions and separations.

The proposed facility would be located on an approximately 81-acre parcel (project site) located east of Clanton Road, south of Tobacco Road, in Augusta, Richmond County, Georgia, adjacent to and south of the existing Solvay Specialty Polymers facility (Figure 1). A portion of the project site was previously developed for industrial use. The project site is zoned Heavy Industrial and contains an existing rail spur. The project site is crossed by existing natural gas and electric utilities, which would serve the proposed facility.

Solvay would redevelop the project site to support the PVDF manufacturing process. Construction activities would include clearing and grading, pouring foundations, and location of utilities.

Solvay would install a primary process furnace and gas purification towers. This area would be approximately 285 ft L x 53 ft W x 150 ft H. There would be one primary building enclosing the main PVDF manufacturing plant and this building would be approximately 490 ft L x 240 ft W x 100 ft H. A recycle gas treatment system comprising of gas compression, liquefaction, and purification towers would be approximately 160 ft L x 60 ft W x 135 ft H (monomer building), and approximately 180 ft L x 60 ft W x 50 ft H (refrigeration unit). There is a utility (cooling tower and air compression) area measuring approximately 165 ft L x 165 ft W x 40 ft H and a wastewater treatment equipment area measuring approximately 165 ft L x 150 ft W x 40 ft H. These structures are shown on Figure 2, attached.

Construction activities are expected to take approximately 18 months to complete.

3610 Collins Ferry Road, Building 26, Room 102, MS 107, Morgantown, WV 26505
Harry.taylor@netl.doe.gov Phone (304)285-5091 www.netl.doe.gov

Based on the scope of the proposed Solvay project, NETL plans to prepare an Environmental Assessment (EA) (DOE/EA- 2237D) in accordance with requirements of the National Environmental Policy Act (NEPA) to analyze, document, and disseminate information on the potential environmental and cultural consequences of the project.

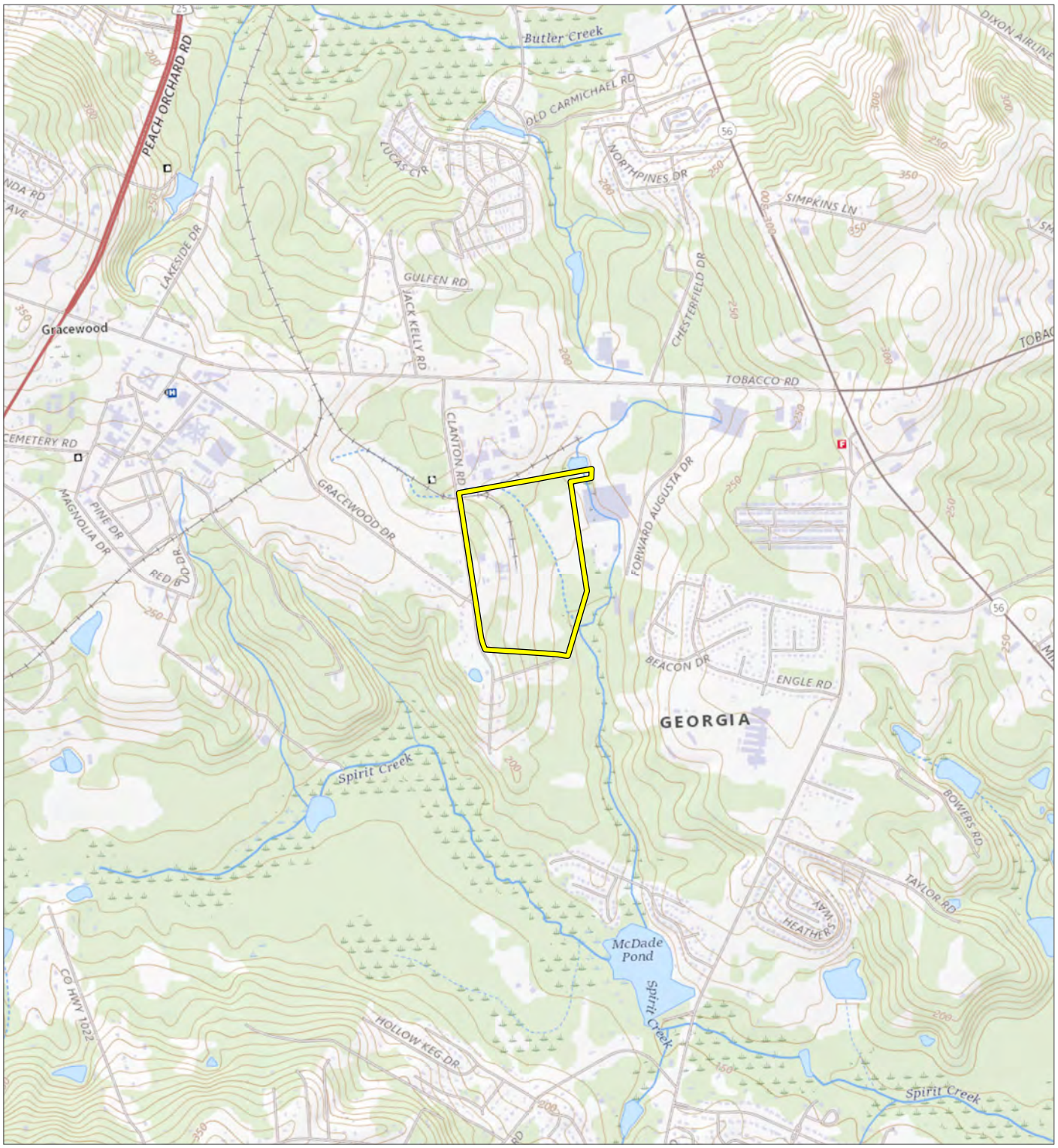
Information that you provide will be incorporated and appropriately addressed in the EA. Moreover, when the Draft EA is circulated for public comment, your organization will be sent an electronic and hard copy where you may provide additional comments.

If you have any questions concerning the project, please contact me. I look forward to working with you.

Sincerely,

Harry E. Taylor, P.E.
NEPA Compliance
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26505
304.285.5091
harry.taylor@netl.doe.gov

Attachments:
Figure 1 Site Location Map
Figure 2 Site Layout Map



PROJECT SITE

0 1,000 2,000

FEET

1:24,000 1" = 2,000'

BASE MAP: USGS/TNM "USA TOPO" ONLINE SERVICE LAYER
DATA SOURCES: TRC, USGS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

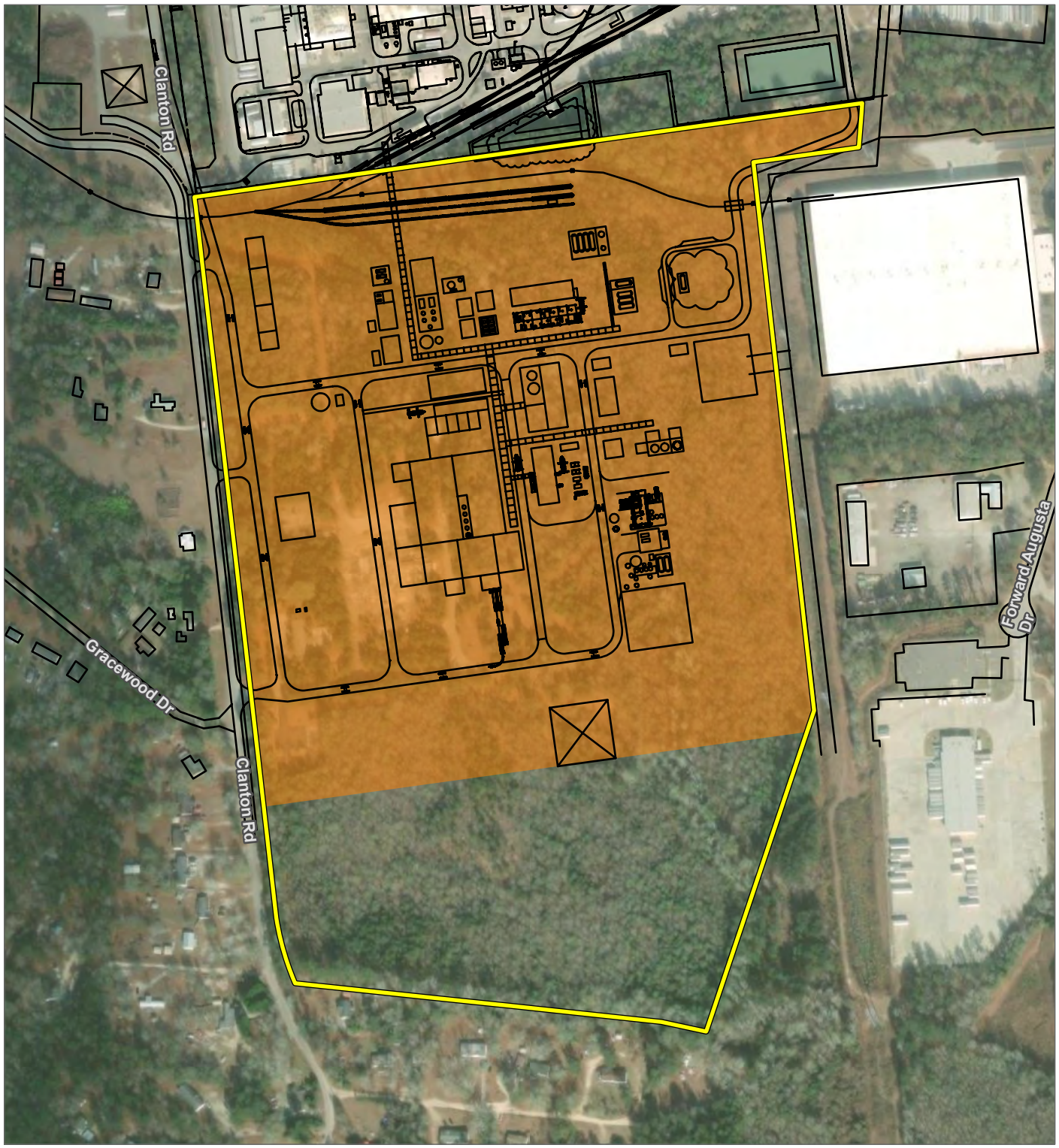
SITE LOCATION MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 1**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX



PROJECT SITE

APPROXIMATE PROJECT LAYOUT/DESIGN

APPROXIMATE LIMIT OF DISTURBANCE

N

0 200 400

FEET

1:4,800 1" = 400'

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER
DATA SOURCES: TRC, ESRI, RICHMOND COUNTY BOARD OF ASSESSORS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

SITE LAYOUT MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 2**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX

November 21, 2023

Ben Yahola, THPO
Alabama Quassarte Tribal Town
P.O. Box 187
Wetumka, OK 74883

SUBJECT: Tribal Consultation and Section 106 Compliance for the Solvay Sarsaparilla Project (DOE/EA-2237D)

Dear Chief Yargee:

I previously spoke with you regarding a project that the U.S. Department of Energy, National Energy Technology Laboratory (NETL) proposes to fund.

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Solvay would redevelop the project site to support the PVDF manufacturing process. Construction activities would include clearing and grading, pouring foundations, and location of utilities.

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Construction activities are expected to take approximately 18 months to complete.

3610 Collins Ferry Road, Building 26, Room 102, MS 107, Morgantown, WV 26505
Harry.taylor@netl.doe.gov Phone (304)285-5091 www.netl.doe.gov

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If you have any questions concerning the project, please contact me. I look forward to working with you.

Sincerely,

Harry E. Taylor, P.E.
NEPA Compliance
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26505
304.285.5091
harry.taylor@netl.doe.gov

Attachments:
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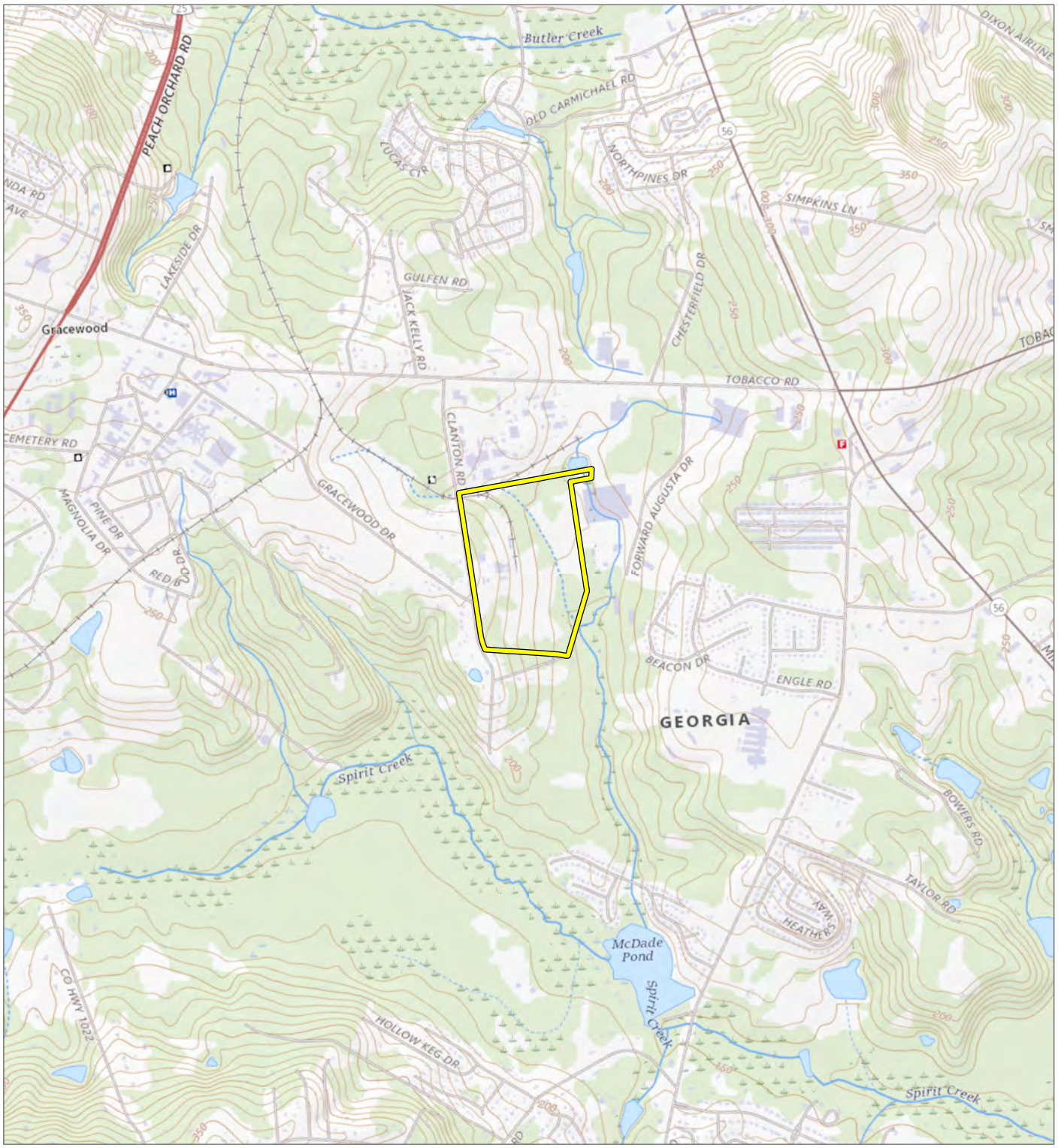

PROJECT SITE

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SOLVAY - SARSAPARILLA

TITLE:

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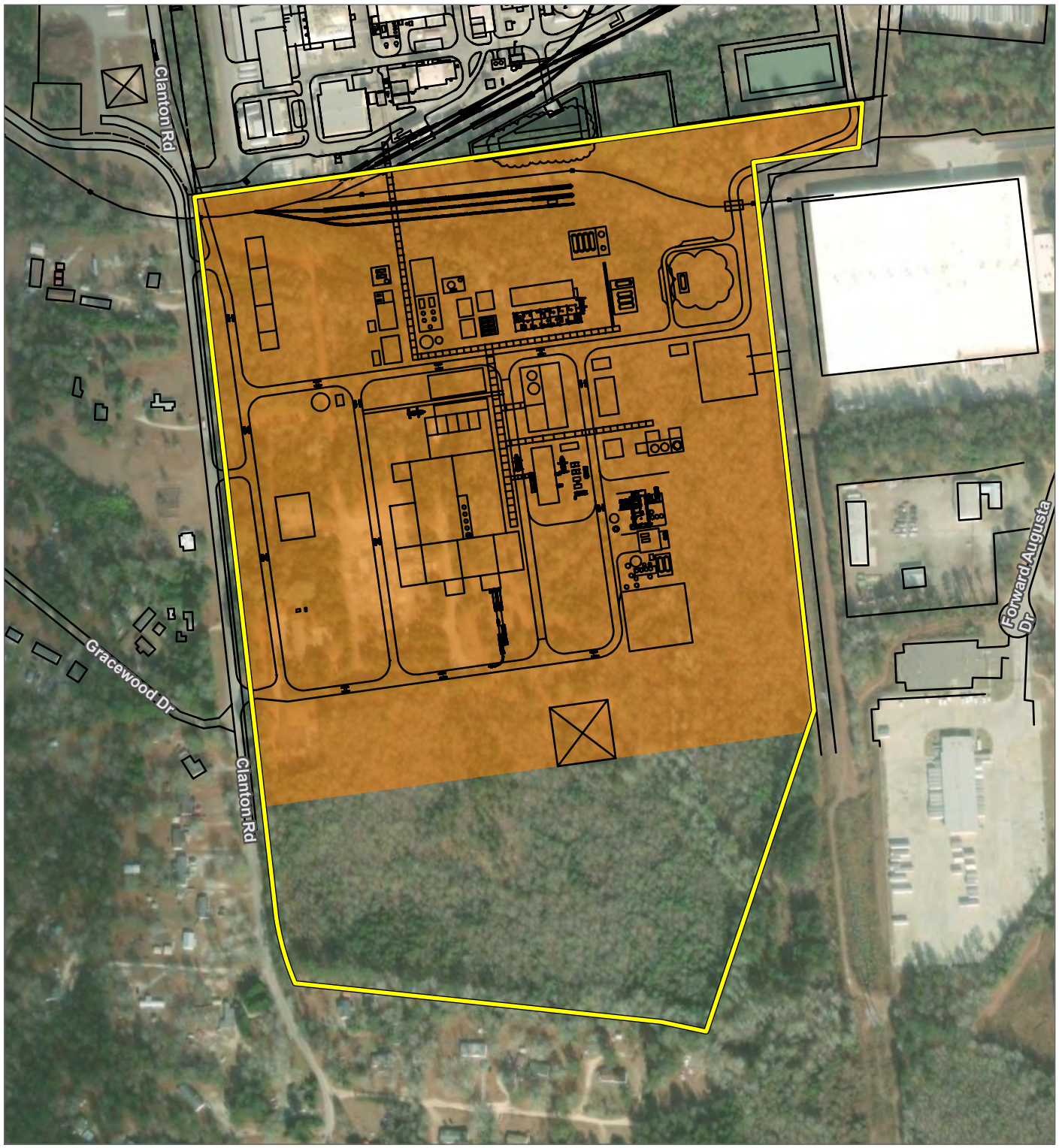

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SOLVAY - SARSAPARILLA

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DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
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PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX

November 21, 2023

Bill Harris, Chief
Catawba/Indian Nation
996 Avenue of the Nations
Rock Hill, SC 29730

SUBJECT: Tribal Consultation and Section 106 Compliance for the Solvay Sarsaparilla Project (DOE/EA-2237D)

Dear Chief Yargee:

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Harry E. Taylor, P.E.
NEPA Compliance
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
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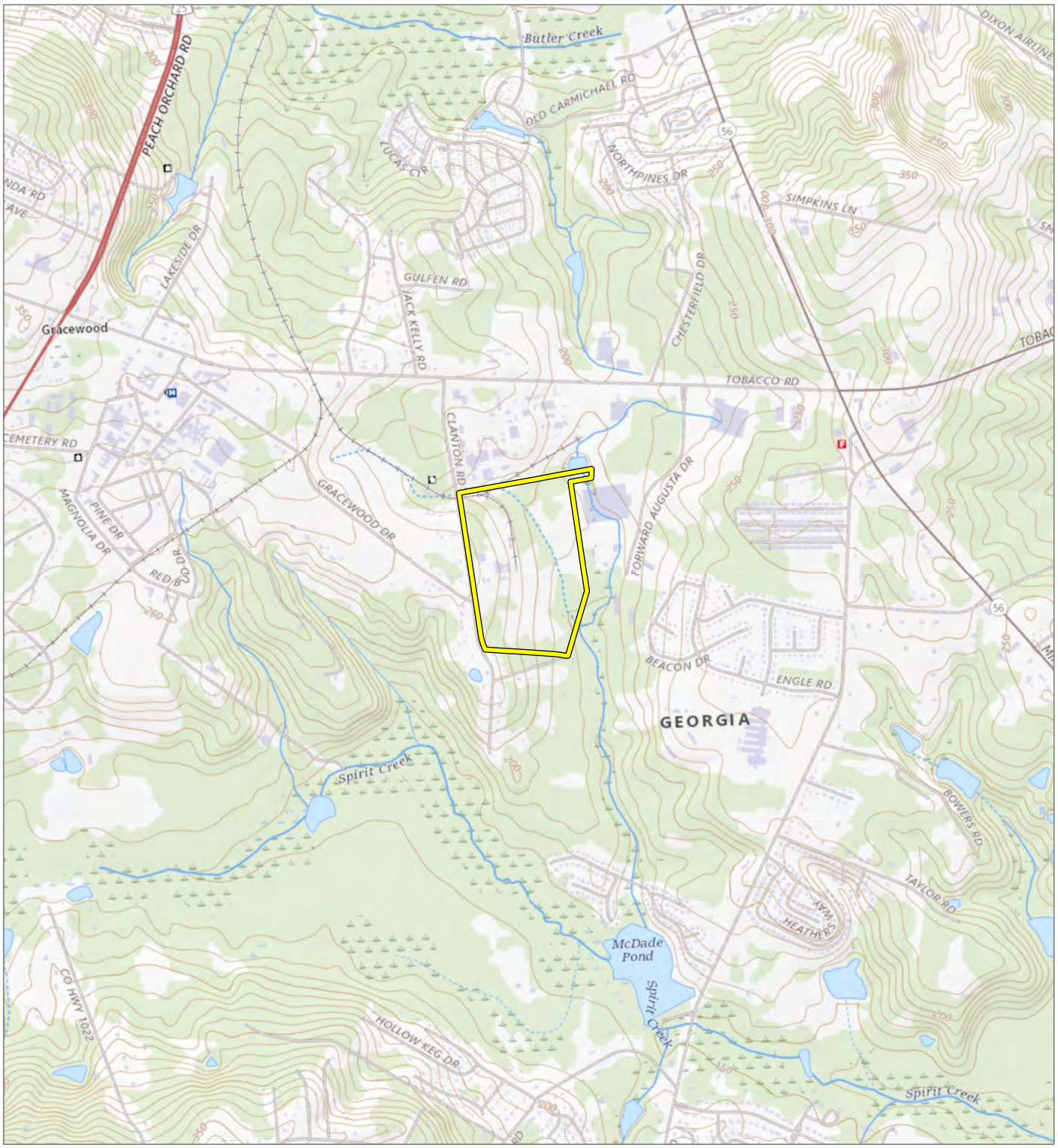

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SOLVAY - SARSAPARILLA

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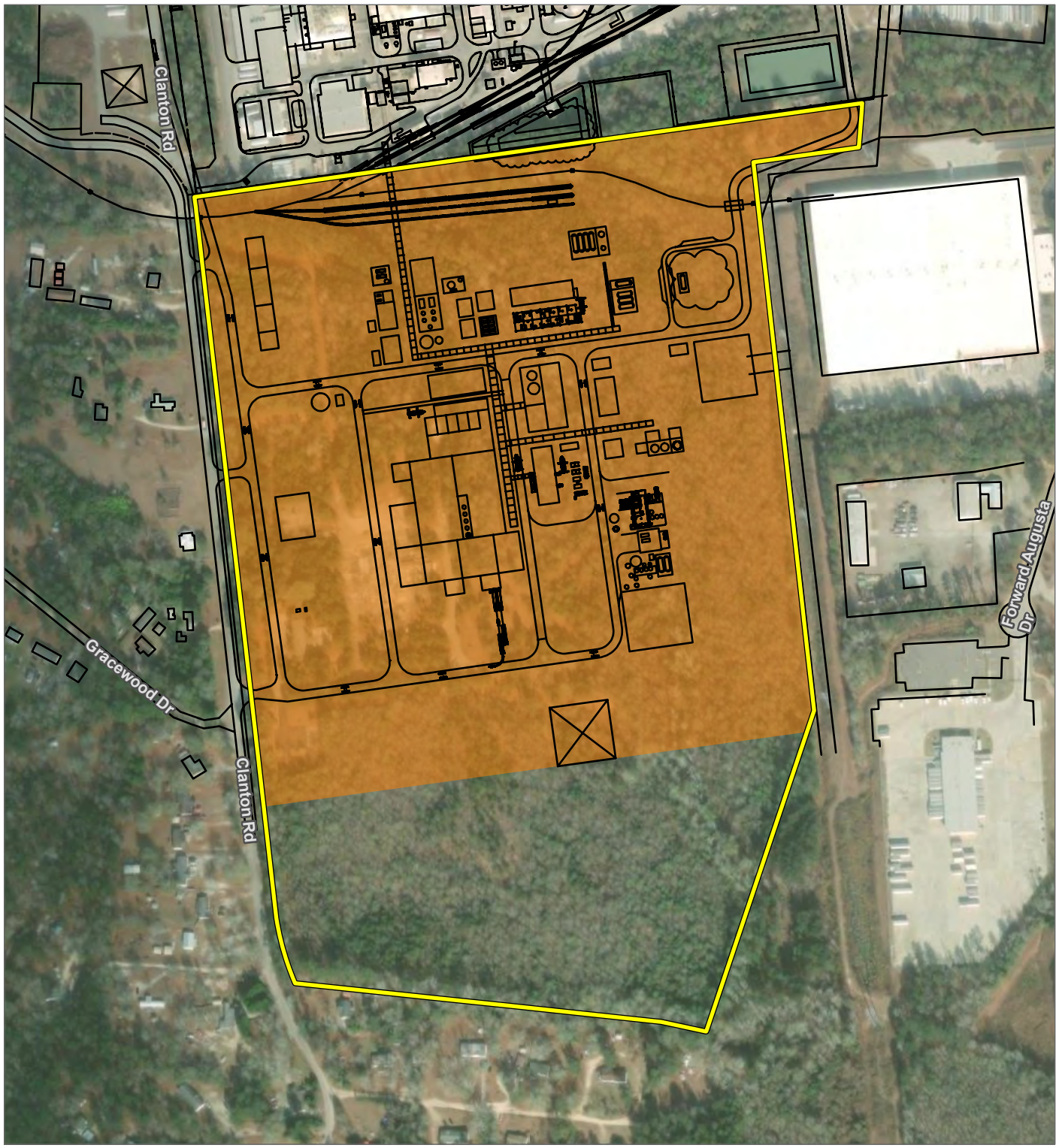

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PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX

November 21, 2023

Dr. Wenonah G. Haire, THPO and Catawba Culture Center Executive Director
Catawba/Indian Nation
1536 Tom Steven Road
Rock Hill, SC 29730

SUBJECT: Tribal Consultation and Section 106 Compliance for the Solvay Sarsaparilla Project (DOE/EA-2237D)

Dear Dr. Haire:

I previously spoke with you regarding a project that the U.S. Department of Energy, National Energy Technology Laboratory (NETL) proposes to fund.

NETL proposes to provide federal funding for the Solvay Sarsaparilla Project. The project would involve construction and operation of a chemical manufacturing facility for the production of polyvinylidene fluoride (PVDF) from 1-Chloro-1,1-difluoroethane (HCFC-142b) through various chemical reactions and separations.

The proposed facility would be located on an approximately 81-acre parcel (project site) located east of Clanton Road, south of Tobacco Road, in Augusta, Richmond County, Georgia, adjacent to and south of the existing Solvay Specialty Polymers facility (Figure 1). A portion of the project site was previously developed for industrial use. The project site is zoned Heavy Industrial and contains an existing rail spur. The project site is crossed by existing natural gas and electric utilities, which would serve the proposed facility.

Solvay would redevelop the project site to support the PVDF manufacturing process. Construction activities would include clearing and grading, pouring foundations, and location of utilities.

Solvay would install a primary process furnace and gas purification towers. This area would be approximately 285 ft L x 53 ft W x 150 ft H. There would be one primary building enclosing the main PVDF manufacturing plant and this building would be approximately 490 ft L x 240 ft W x 100 ft H. A recycle gas treatment system comprising of gas compression, liquefaction, and purification towers would be approximately 160 ft L x 60 ft W x 135 ft H (monomer building), and approximately 180 ft L x 60 ft W x 50 ft H (refrigeration unit). There is a utility (cooling tower and air compression) area measuring approximately 165 ft L x 165 ft W x 40 ft H and a wastewater treatment equipment area measuring approximately 165 ft L x 150 ft W x 40 ft H. These structures are shown on Figure 2, attached.

Construction activities are expected to take approximately 18 months to complete.

3610 Collins Ferry Road, Building 26, Room 102, MS 107, Morgantown, WV 26505
Harry.taylor@netl.doe.gov Phone (304)285-5091 www.netl.doe.gov

Based on the scope of the proposed Solvay project, NETL plans to prepare an Environmental Assessment (EA) (DOE/EA- 2237D) in accordance with requirements of the National Environmental Policy Act (NEPA) to analyze, document, and disseminate information on the potential environmental and cultural consequences of the project.

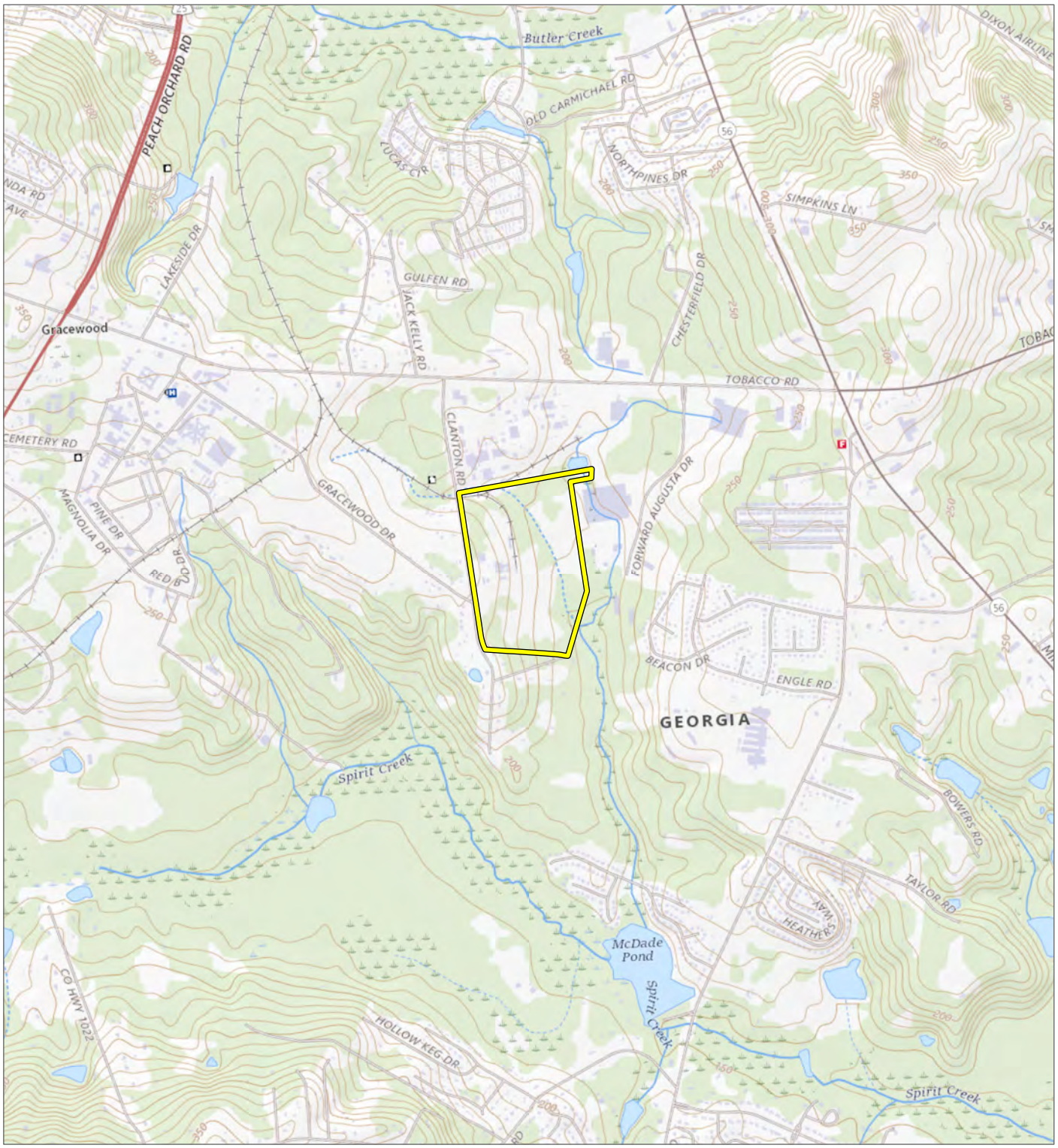
Information that you provide will be incorporated and appropriately addressed in the EA. Moreover, when the Draft EA is circulated for public comment, your organization will be sent an electronic and hard copy where you may provide additional comments.

If you have any questions concerning the project, please contact me. I look forward to working with you.

Sincerely,

Harry E. Taylor, P.E.
NEPA Compliance
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26505
304.285.5091
harry.taylor@netl.doe.gov

Attachments:
Figure 1 Site Location Map
Figure 2 Site Layout Map



PROJECT SITE

0 1,000 2,000

FEET

1:24,000 1" = 2,000'

BASE MAP: USGS/TNM "USA TOPO" ONLINE SERVICE LAYER
DATA SOURCES: TRC, USGS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

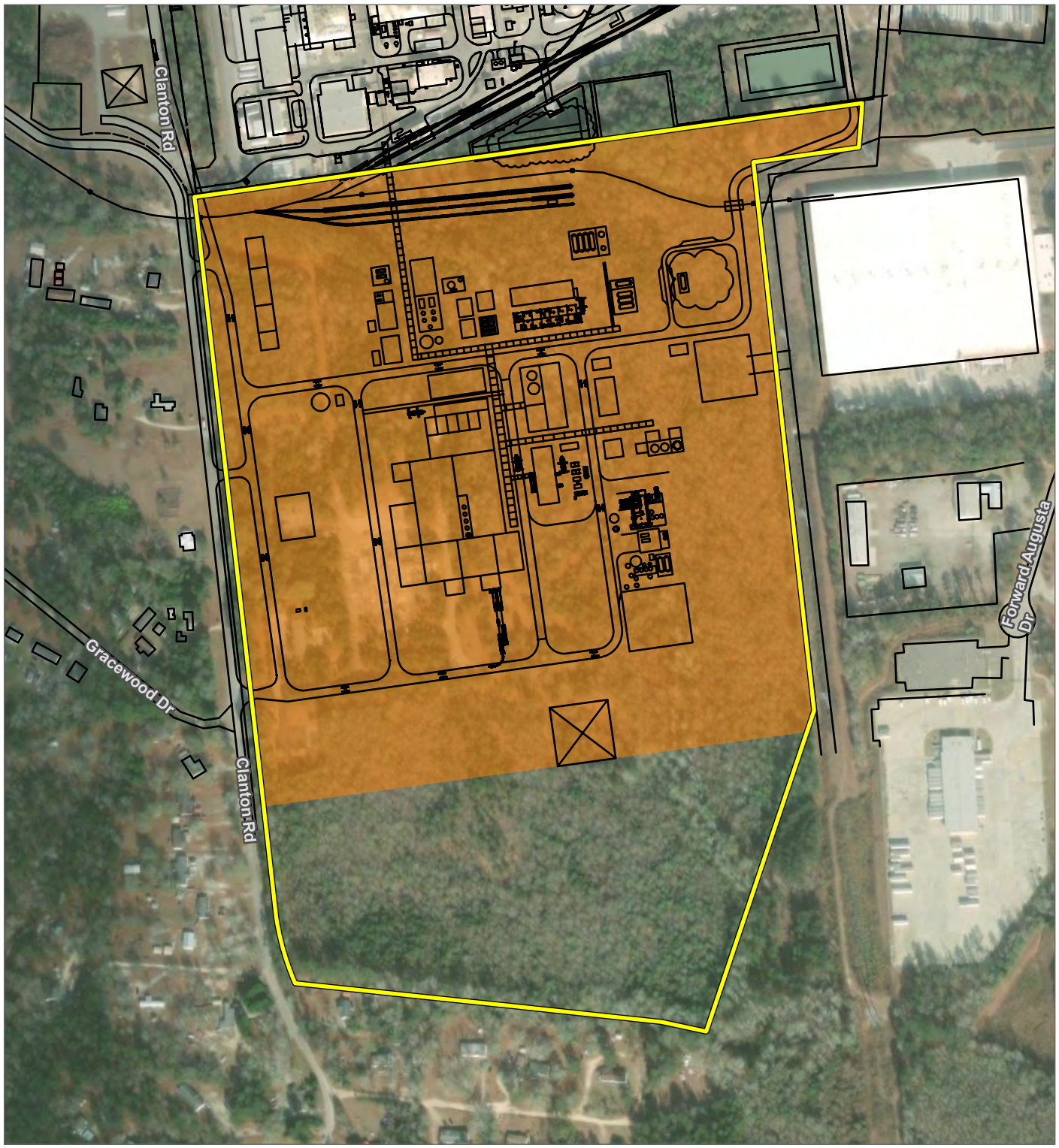
SITE LOCATION MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 1**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX



PROJECT SITE

APPROXIMATE PROJECT LAYOUT/DESIGN

APPROXIMATE LIMIT OF DISTURBANCE

N

0 200 400

FEET

1:4,800 1" = 400'

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER
DATA SOURCES: TRC, ESRI, RICHMOND COUNTY BOARD OF ASSESSORS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

SITE LAYOUT MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 2**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX

November 21, 2023

Jonathon Cernek, Chairman
Coushatta Tribe of Louisiana
1940 C.C. Bel Road
Elton, LA 70532

SUBJECT: Tribal Consultation and Section 106 Compliance for the Solvay Sarsaparilla Project (DOE/EA-2237D)

Dear Mr. Cernek:

I previously spoke with you regarding a project that the U.S. Department of Energy, National Energy Technology Laboratory (NETL) proposes to fund.

NETL proposes to provide federal funding for the Solvay Sarsaparilla Project. The project would involve construction and operation of a chemical manufacturing facility for the production of polyvinylidene fluoride (PVDF) from 1-Chloro-1,1-difluoroethane (HCFC-142b) through various chemical reactions and separations.

The proposed facility would be located on an approximately 81-acre parcel (project site) located east of Clanton Road, south of Tobacco Road, in Augusta, Richmond County, Georgia, adjacent to and south of the existing Solvay Specialty Polymers facility (Figure 1). A portion of the project site was previously developed for industrial use. The project site is zoned Heavy Industrial and contains an existing rail spur. The project site is crossed by existing natural gas and electric utilities, which would serve the proposed facility.

Solvay would redevelop the project site to support the PVDF manufacturing process. Construction activities would include clearing and grading, pouring foundations, and location of utilities.

Solvay would install a primary process furnace and gas purification towers. This area would be approximately 285 ft L x 53 ft W x 150 ft H. There would be one primary building enclosing the main PVDF manufacturing plant and this building would be approximately 490 ft L x 240 ft W x 100 ft H. A recycle gas treatment system comprising of gas compression, liquefaction, and purification towers would be approximately 160 ft L x 60 ft W x 135 ft H (monomer building), and approximately 180 ft L x 60 ft W x 50 ft H (refrigeration unit). There is a utility (cooling tower and air compression) area measuring approximately 165 ft L x 165 ft W x 40 ft H and a wastewater treatment equipment area measuring approximately 165 ft L x 150 ft W x 40 ft H. These structures are shown on Figure 2, attached.

Construction activities are expected to take approximately 18 months to complete.

3610 Collins Ferry Road, Building 26, Room 102, MS 107, Morgantown, WV 26505
Harry.taylor@netl.doe.gov Phone (304)285-5091 www.netl.doe.gov

Based on the scope of the proposed Solvay project, NETL plans to prepare an Environmental Assessment (EA) (DOE/EA- 2237D) in accordance with requirements of the National Environmental Policy Act (NEPA) to analyze, document, and disseminate information on the potential environmental and cultural consequences of the project.

Information that you provide will be incorporated and appropriately addressed in the EA. Moreover, when the Draft EA is circulated for public comment, your organization will be sent an electronic and hard copy where you may provide additional comments.

If you have any questions concerning the project, please contact me. I look forward to working with you.

Sincerely,

Harry E. Taylor, P.E.
NEPA Compliance
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26505
304.285.5091
harry.taylor@netl.doe.gov

Attachments:
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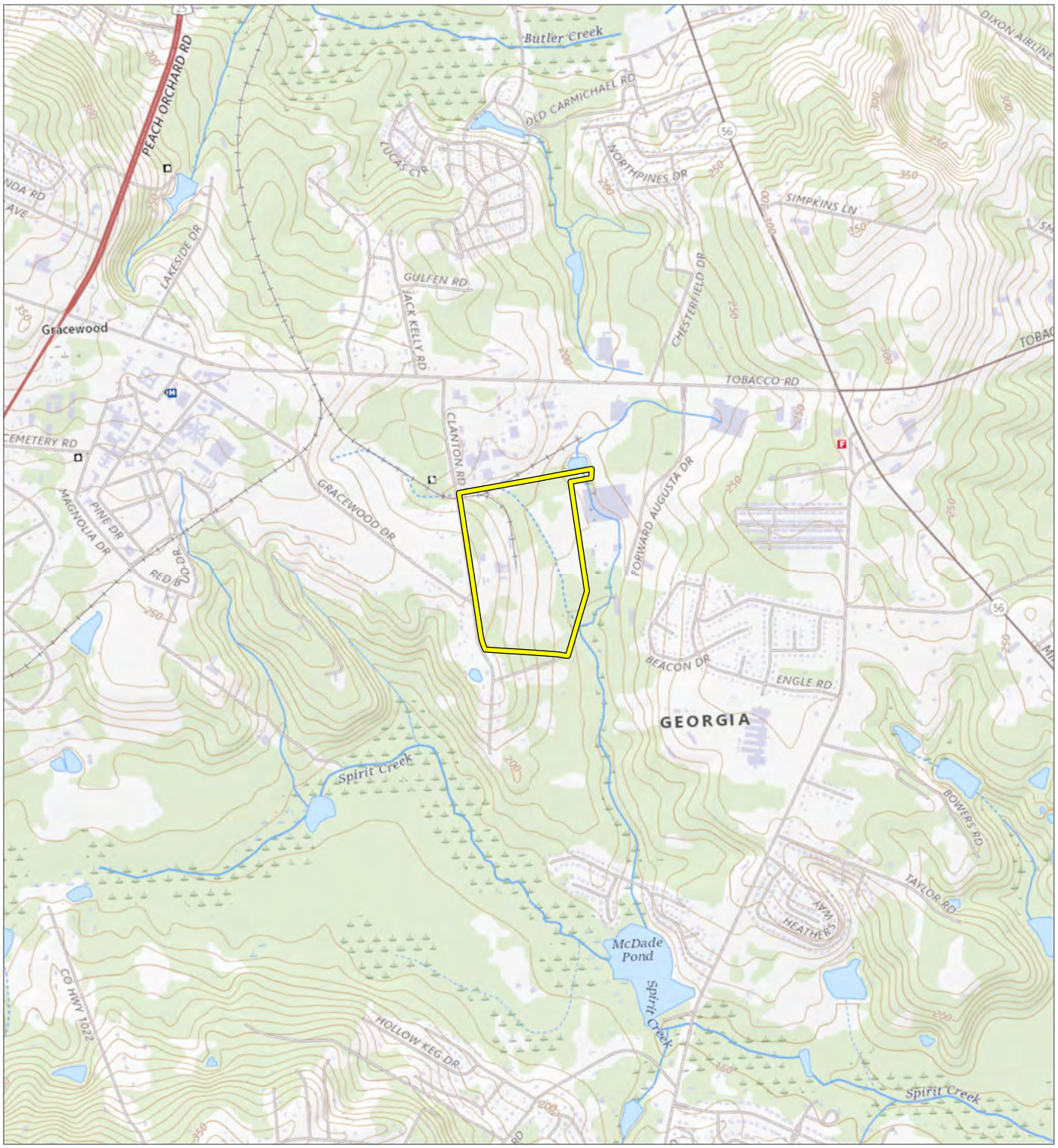


PROJECT SITE

0 1,000 2,000

FEET

1:24,000 1" = 2,000'

BASE MAP: USGS/TNM "USA TOPO" ONLINE SERVICE LAYER
DATA SOURCES: TRC, USGS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

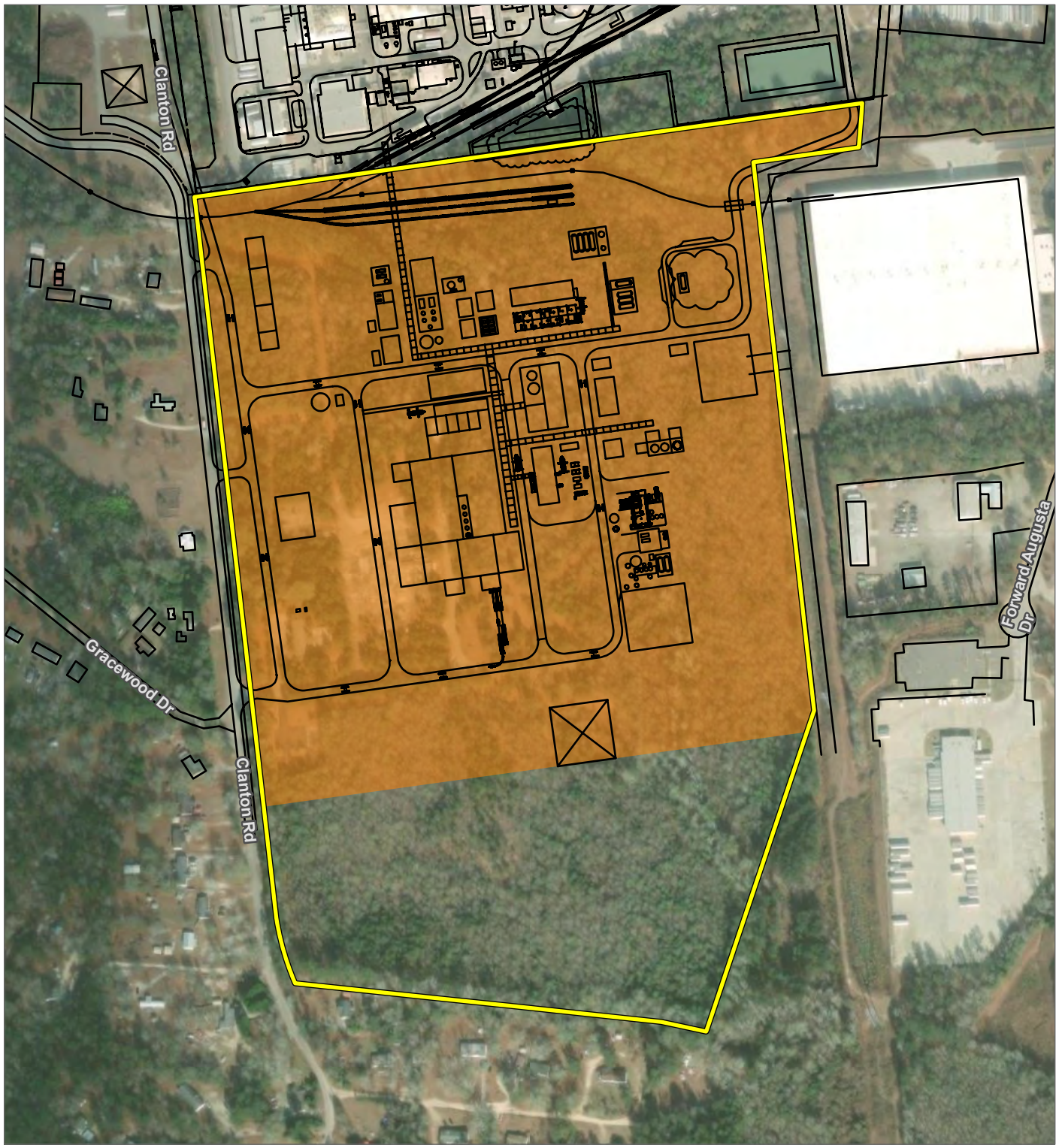
SITE LOCATION MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 1**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX



PROJECT SITE

APPROXIMATE PROJECT LAYOUT/DESIGN

APPROXIMATE LIMIT OF DISTURBANCE

N

0 200 400

FEET

1:4,800 1" = 400'

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER
DATA SOURCES: TRC, ESRI, RICHMOND COUNTY BOARD OF ASSESSORS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

SITE LAYOUT MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 2**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX

November 21, 2023

Kristian Poncho, THPO
Coushatta Tribe of Louisiana
P.O. Box 10
Elton, LA 70532

SUBJECT: Tribal Consultation and Section 106 Compliance for the Solvay Sarsaparilla Project (DOE/EA-2237D)

Dear Mr. Poncho:

I previously spoke with you regarding a project that the U.S. Department of Energy, National Energy Technology Laboratory (NETL) proposes to fund.

NETL proposes to provide federal funding for the Solvay Sarsaparilla Project. The project would involve construction and operation of a chemical manufacturing facility for the production of polyvinylidene fluoride (PVDF) from 1-Chloro-1,1-difluoroethane (HCFC-142b) through various chemical reactions and separations.

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Solvay would redevelop the project site to support the PVDF manufacturing process. Construction activities would include clearing and grading, pouring foundations, and location of utilities.

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Construction activities are expected to take approximately 18 months to complete.

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Harry.taylor@netl.doe.gov Phone (304)285-5091 www.netl.doe.gov

Based on the scope of the proposed Solvay project, NETL plans to prepare an Environmental Assessment (EA) (DOE/EA- 2237D) in accordance with requirements of the National Environmental Policy Act (NEPA) to analyze, document, and disseminate information on the potential environmental and cultural consequences of the project.

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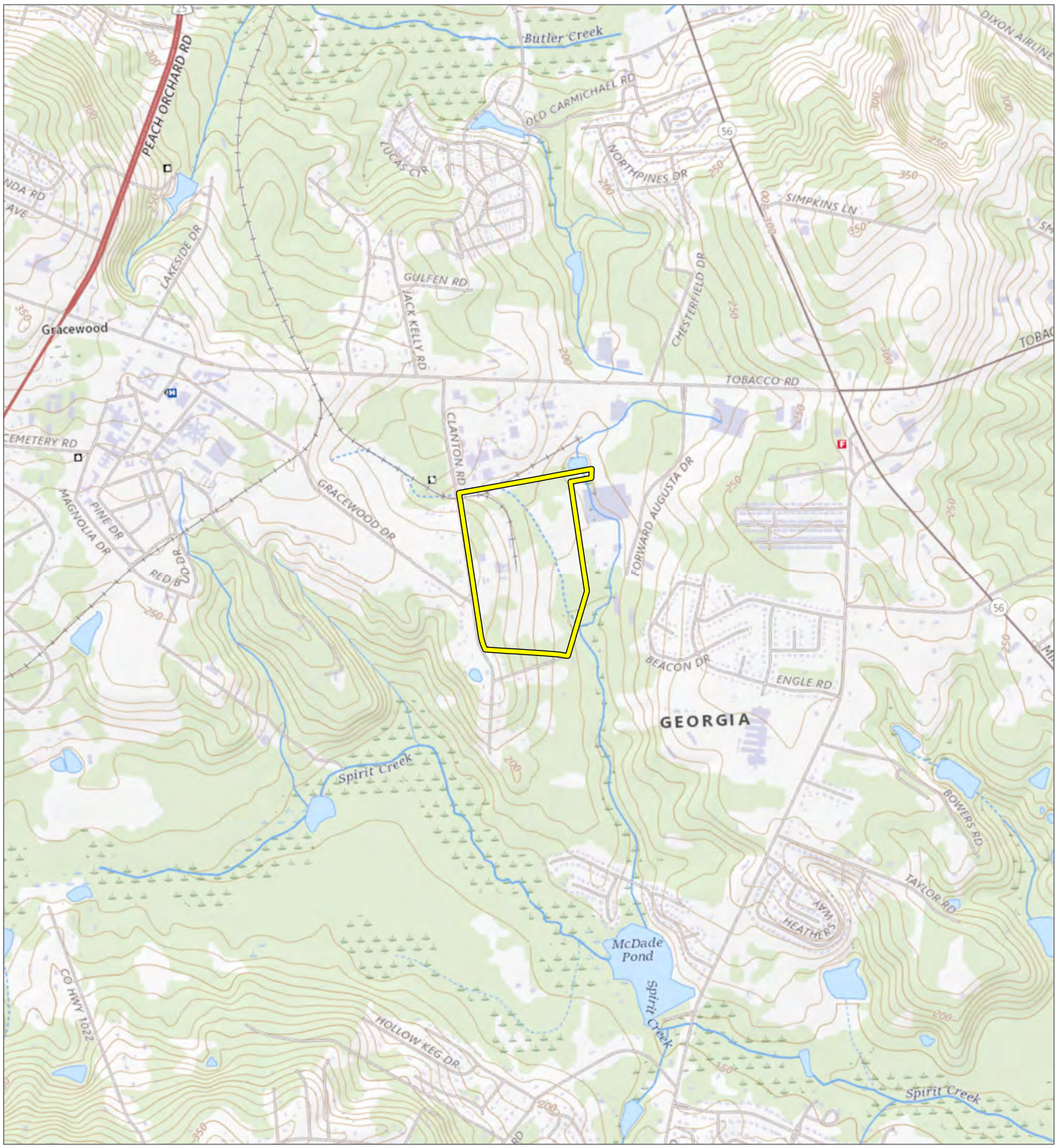
If you have any questions concerning the project, please contact me. I look forward to working with you.

Sincerely,

Harry E. Taylor, P.E.
NEPA Compliance
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26505
304.285.5091
harry.taylor@netl.doe.gov

Attachments:
Figure 1 Site Location Map
Figure 2 Site Layout Map



PROJECT SITE

0 1,000 2,000

FEET

1:24,000 1" = 2,000'

BASE MAP: USGS/TNM "USA TOPO" ONLINE SERVICE LAYER
DATA SOURCES: TRC, USGS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

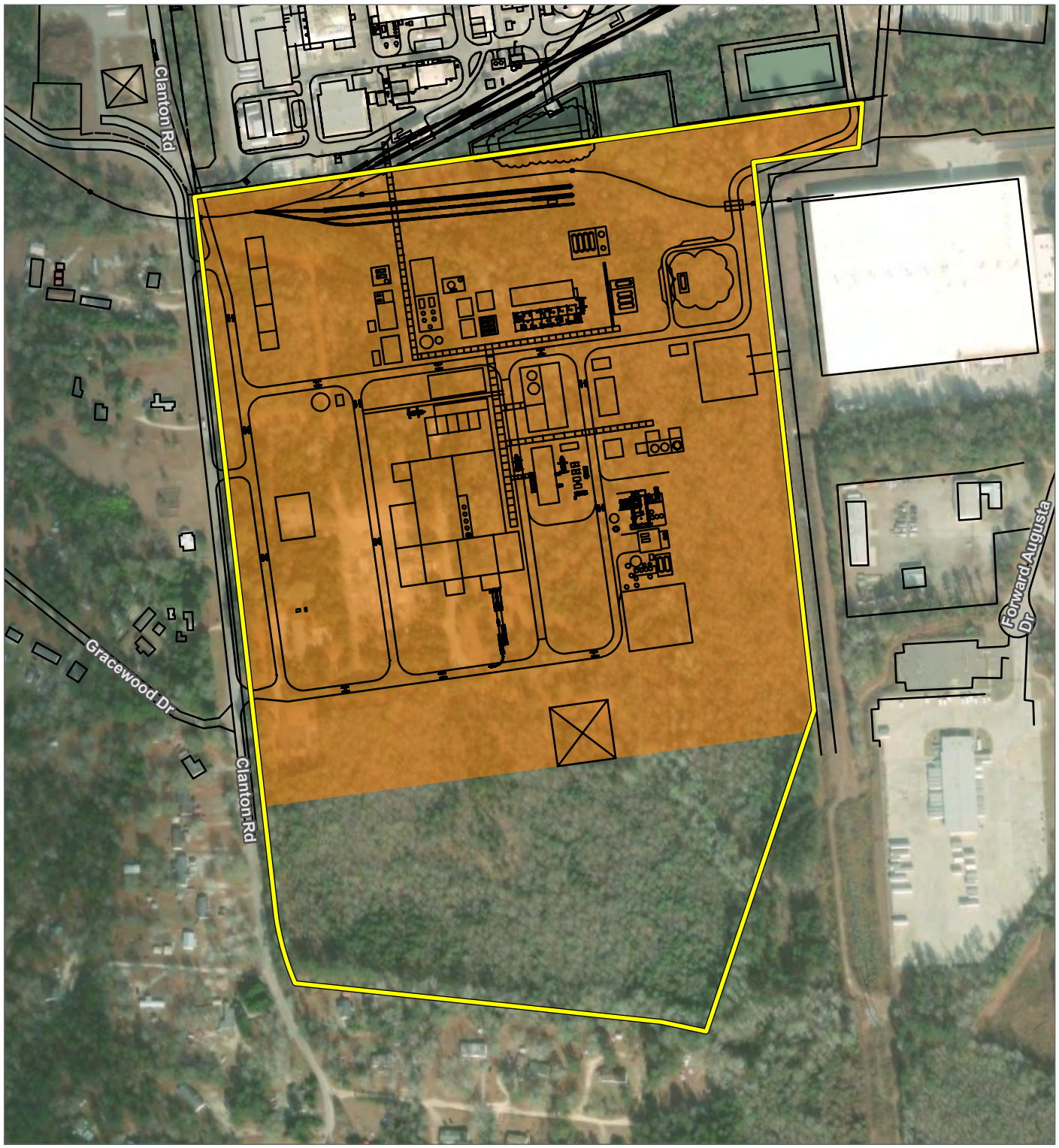
SITE LOCATION MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 1**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX



PROJECT SITE

APPROXIMATE PROJECT LAYOUT/DESIGN

APPROXIMATE LIMIT OF DISTURBANCE

N

0 200 400

FEET

1:4,800 1" = 400'

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER
DATA SOURCES: TRC, ESRI, RICHMOND COUNTY BOARD OF ASSESSORS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

SITE LAYOUT MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 2**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX

November 21, 2023

Glenna Wallace, Chief
Eastern Shawnee Tribe of Louisiana
127 West Oneida
Seneca, MO 64865

SUBJECT: Tribal Consultation and Section 106 Compliance for the Solvay Sarsaparilla Project (DOE/EA-2237D)

Dear Chief Wallace:

I previously spoke with you regarding a project that the U.S. Department of Energy, National Energy Technology Laboratory (NETL) proposes to fund.

NETL proposes to provide federal funding for the Solvay Sarsaparilla Project. The project would involve construction and operation of a chemical manufacturing facility for the production of polyvinylidene fluoride (PVDF) from 1-Chloro-1,1-difluoroethane (HCFC-142b) through various chemical reactions and separations.

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3610 Collins Ferry Road, Building 26, Room 102, MS 107, Morgantown, WV 26505
Harry.taylor@netl.doe.gov Phone (304)285-5091 www.netl.doe.gov

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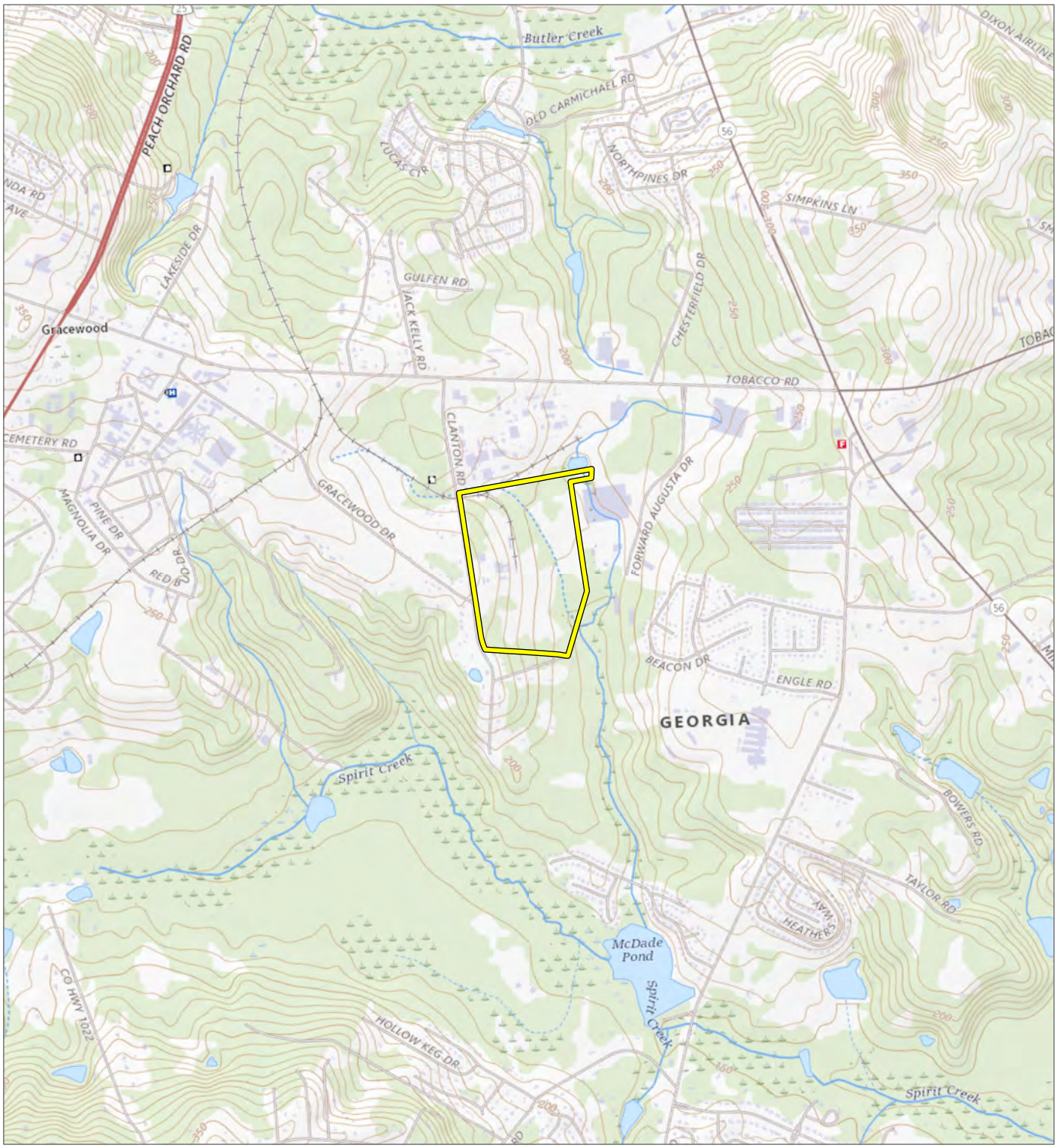
If you have any questions concerning the project, please contact me. I look forward to working with you.

Sincerely,

Harry E. Taylor, P.E.
NEPA Compliance
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26505
304.285.5091
harry.taylor@netl.doe.gov

Attachments:
Figure 1 Site Location Map
Figure 2 Site Layout Map



PROJECT SITE

0 1,000 2,000

FEET

1:24,000 1" = 2,000'

BASE MAP: USGS/TNM "USA TOPO" ONLINE SERVICE LAYER
DATA SOURCES: TRC, USGS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

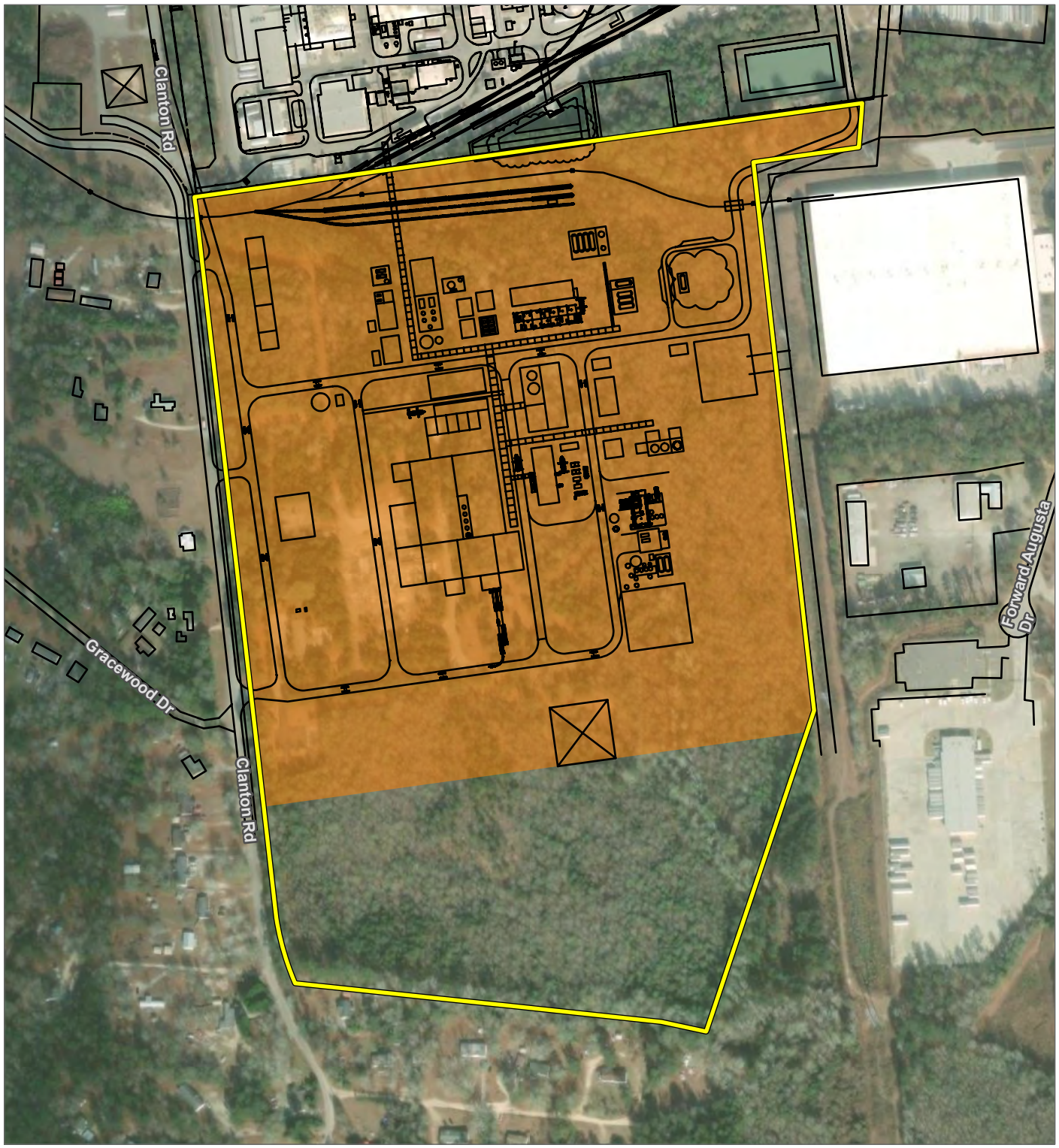
SITE LOCATION MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 1**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX



PROJECT SITE

APPROXIMATE PROJECT LAYOUT/DESIGN

APPROXIMATE LIMIT OF DISTURBANCE

N

0 200 400

FEET

1:4,800 1" = 400'

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER
DATA SOURCES: TRC, ESRI, RICHMOND COUNTY BOARD OF ASSESSORS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

SITE LAYOUT MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 2**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX

November 22, 2023

Paul Barton, THGPO/Director of Culture Preservation Programs/NAGPRA
Eastern Shawnee Tribe of Louisiana
70500 E. 128 Road
Wyandotte, OK 74370

SUBJECT: Tribal Consultation and Section 106 Compliance for the Solvay Sarsaparilla Project (DOE/EA-2237D)

Dear Mr. Barton:

I previously spoke with you regarding a project that the U.S. Department of Energy, National Energy Technology Laboratory (NETL) proposes to fund.

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Sincerely,

Harry E. Taylor, P.E.
NEPA Compliance
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
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304.285.5091
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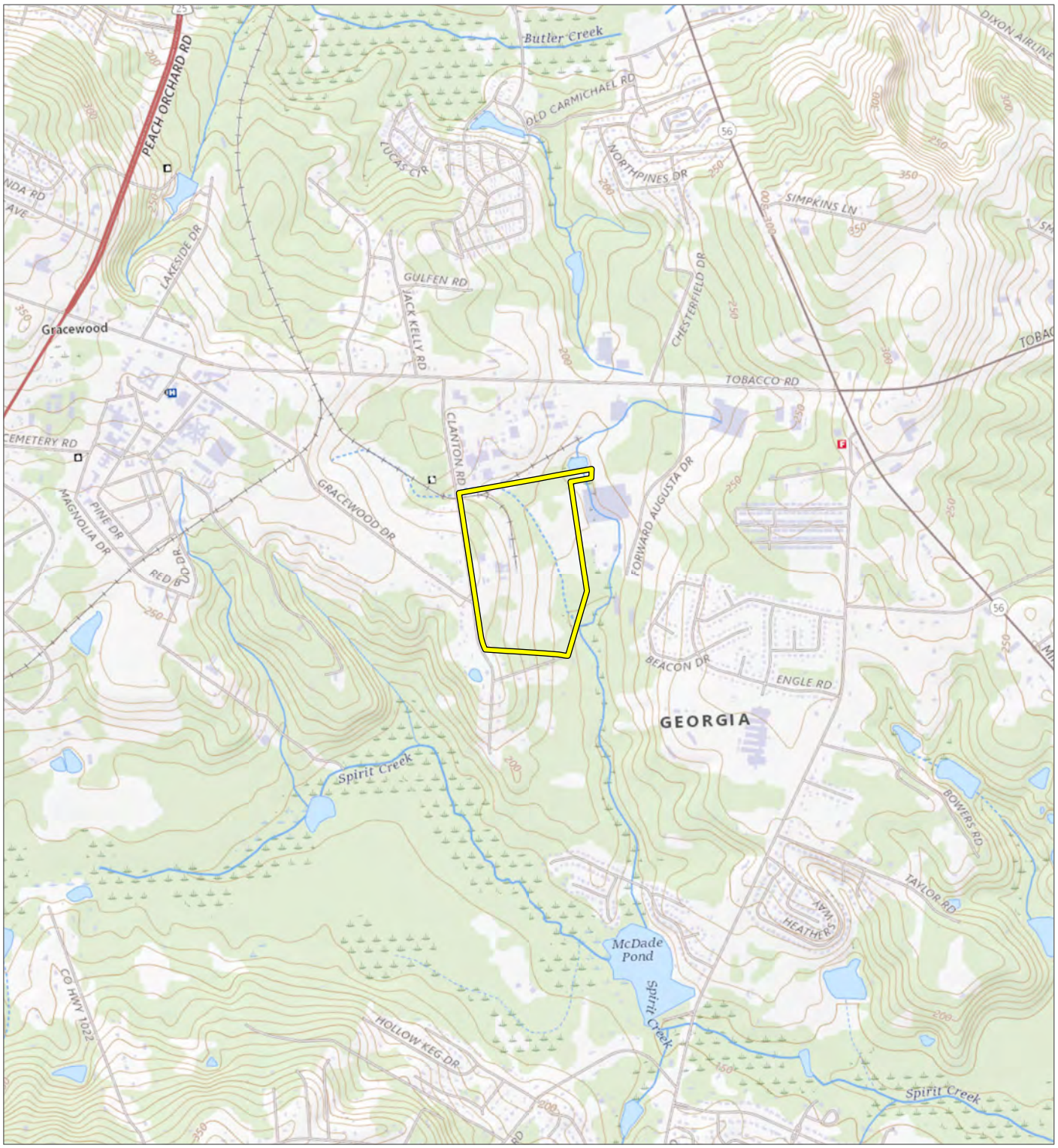


PROJECT SITE

0 1,000 2,000

FEET

1:24,000 1" = 2,000'

BASE MAP: USGS/TNM "USA TOPO" ONLINE SERVICE LAYER
DATA SOURCES: TRC, USGS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

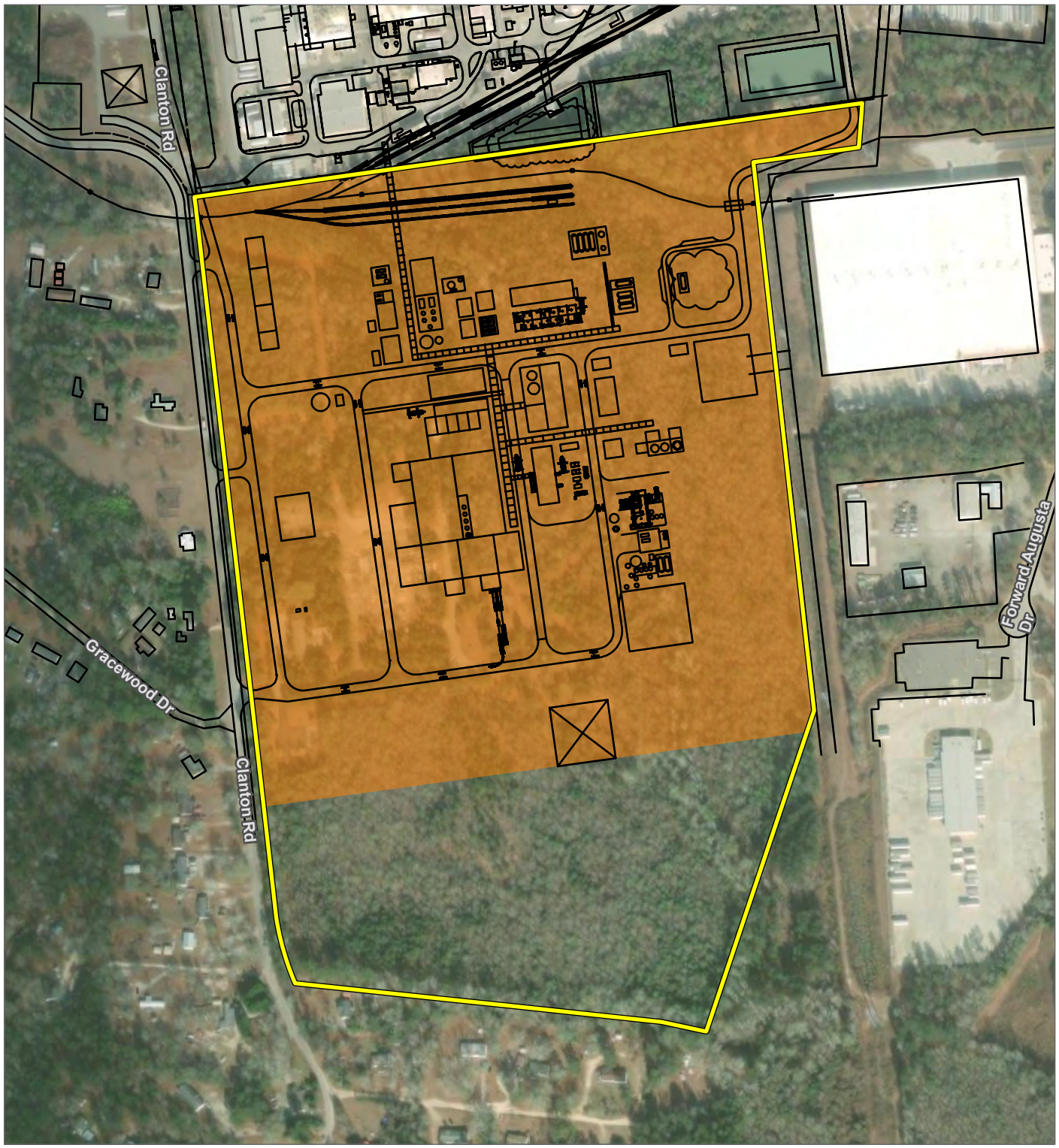
SITE LOCATION MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 1**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX



PROJECT SITE

APPROXIMATE PROJECT LAYOUT/DESIGN

APPROXIMATE LIMIT OF DISTURBANCE

N

0 200 400

FEET

1:4,800 1" = 400'

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER
DATA SOURCES: TRC, ESRI, RICHMOND COUNTY BOARD OF ASSESSORS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

SITE LAYOUT MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 2**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX

November 21, 2023

David Hill, Principal Chief
Muscogee (Creek) Nation
1007 East Eufaula Street
Okmulgee, OK 74447

SUBJECT: Tribal Consultation and Section 106 Compliance for the Solvay Sarsaparilla Project (DOE/EA-2237D)

Dear Chief Hill:

I previously spoke with you regarding a project that the U.S. Department of Energy, National Energy Technology Laboratory (NETL) proposes to fund.

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Solvay would install a primary process furnace and gas purification towers. This area would be approximately 285 ft L x 53 ft W x 150 ft H. There would be one primary building enclosing the main PVDF manufacturing plant and this building would be approximately 490 ft L x 240 ft W x 100 ft H. A recycle gas treatment system comprising of gas compression, liquefaction, and purification towers would be approximately 160 ft L x 60 ft W x 135 ft H (monomer building), and approximately 180 ft L x 60 ft W x 50 ft H (refrigeration unit). There is a utility (cooling tower and air compression) area measuring approximately 165 ft L x 165 ft W x 40 ft H and a wastewater treatment equipment area measuring approximately 165 ft L x 150 ft W x 40 ft H. These structures are shown on Figure 2, attached.

Construction activities are expected to take approximately 18 months to complete.

3610 Collins Ferry Road, Building 26, Room 102, MS 107, Morgantown, WV 26505
Harry.taylor@netl.doe.gov Phone (304)285-5091 www.netl.doe.gov

Based on the scope of the proposed Solvay project, NETL plans to prepare an Environmental Assessment (EA) (DOE/EA- 2237D) in accordance with requirements of the National Environmental Policy Act (NEPA) to analyze, document, and disseminate information on the potential environmental and cultural consequences of the project.

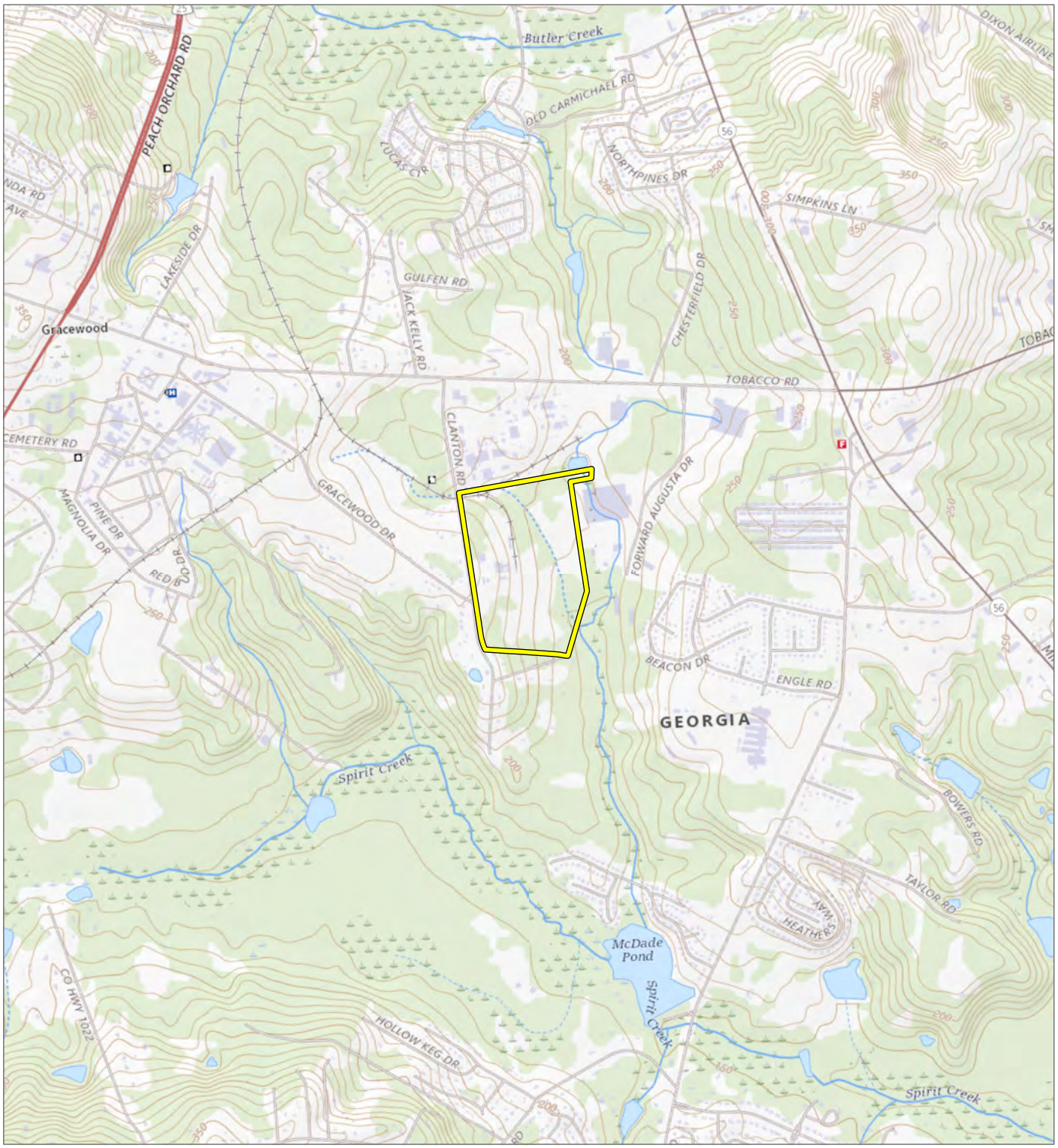
Information that you provide will be incorporated and appropriately addressed in the EA. Moreover, when the Draft EA is circulated for public comment, your organization will be sent an electronic and hard copy where you may provide additional comments.

If you have any questions concerning the project, please contact me. I look forward to working with you.

Sincerely,

Harry E. Taylor, P.E.
NEPA Compliance
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26505
304.285.5091
harry.taylor@netl.doe.gov

Attachments:
Figure 1 Site Location Map
Figure 2 Site Layout Map



PROJECT SITE

0 1,000 2,000

FEET

1:24,000 1" = 2,000'

BASE MAP: USGS/TNM "USA TOPO" ONLINE SERVICE LAYER
DATA SOURCES: TRC, USGS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

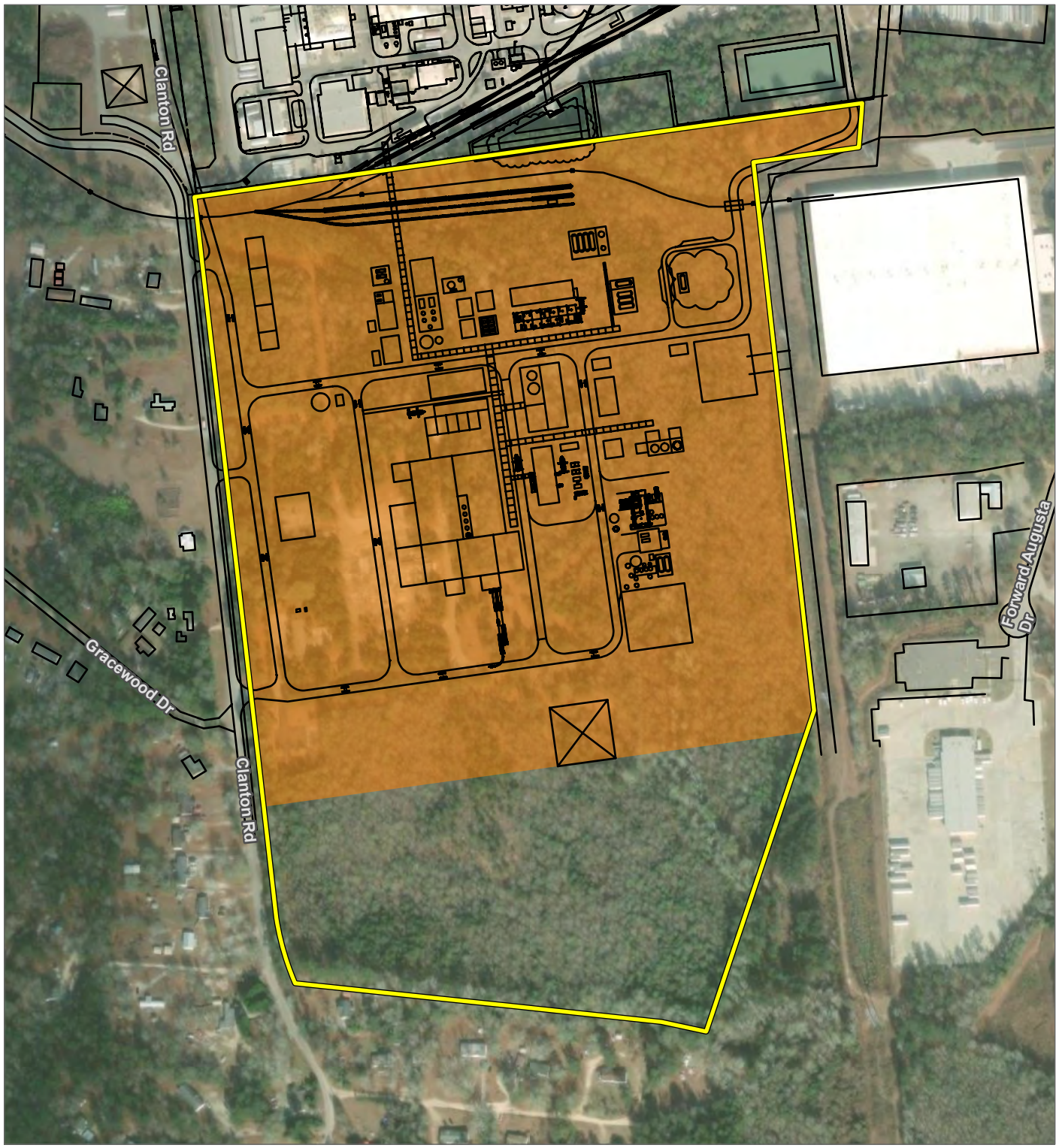
SITE LOCATION MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 1**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX



PROJECT SITE

APPROXIMATE PROJECT LAYOUT/DESIGN

APPROXIMATE LIMIT OF DISTURBANCE

N

0 200 400

FEET

1:4,800 1" = 400'

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER
DATA SOURCES: TRC, ESRI, RICHMOND COUNTY BOARD OF ASSESSORS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

SITE LAYOUT MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 2**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX

November 21, 2023

Turner Hunt, THPO
Muscogee (Creek) Nation
P.O. Box 580
Okmulgee, OK 74447

SUBJECT: Tribal Consultation and Section 106 Compliance for the Solvay Sarsaparilla Project (DOE/EA-2237D)

Dear Chief Hill:

I previously spoke with you regarding a project that the U.S. Department of Energy, National Energy Technology Laboratory (NETL) proposes to fund.

NETL proposes to provide federal funding for the Solvay Sarsaparilla Project. The project would involve construction and operation of a chemical manufacturing facility for the production of polyvinylidene fluoride (PVDF) from 1-Chloro-1,1-difluoroethane (HCFC-142b) through various chemical reactions and separations.

The proposed facility would be located on an approximately 81-acre parcel (project site) located east of Clanton Road, south of Tobacco Road, in Augusta, Richmond County, Georgia, adjacent to and south of the existing Solvay Specialty Polymers facility (Figure 1). A portion of the project site was previously developed for industrial use. The project site is zoned Heavy Industrial and contains an existing rail spur. The project site is crossed by existing natural gas and electric utilities, which would serve the proposed facility.

Solvay would redevelop the project site to support the PVDF manufacturing process. Construction activities would include clearing and grading, pouring foundations, and location of utilities.

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Construction activities are expected to take approximately 18 months to complete.

3610 Collins Ferry Road, Building 26, Room 102, MS 107, Morgantown, WV 26505
Harry.taylor@netl.doe.gov Phone (304)285-5091 www.netl.doe.gov

Based on the scope of the proposed Solvay project, NETL plans to prepare an Environmental Assessment (EA) (DOE/EA- 2237D) in accordance with requirements of the National Environmental Policy Act (NEPA) to analyze, document, and disseminate information on the potential environmental and cultural consequences of the project.

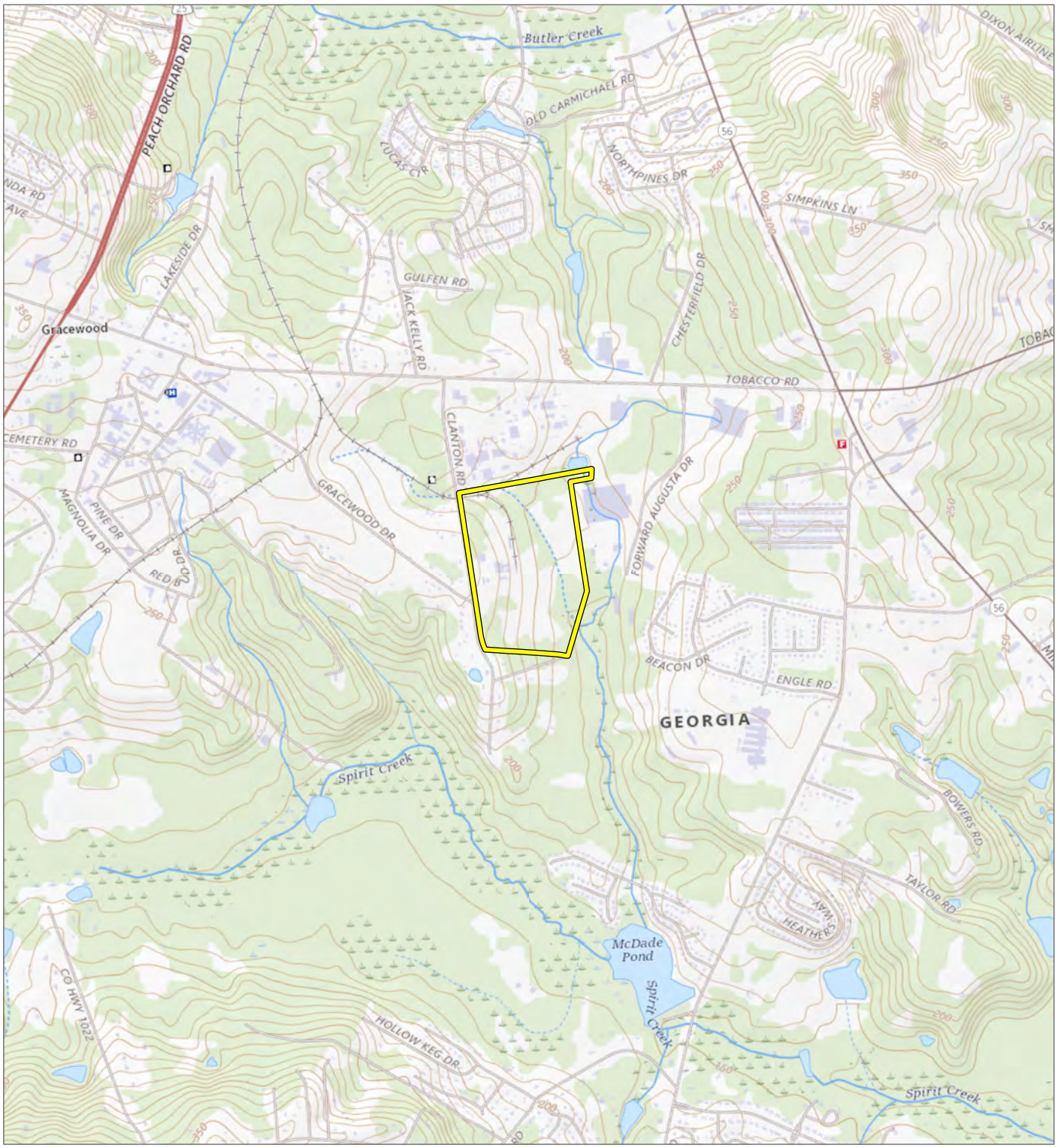
Information that you provide will be incorporated and appropriately addressed in the EA. Moreover, when the Draft EA is circulated for public comment, your organization will be sent an electronic and hard copy where you may provide additional comments.

If you have any questions concerning the project, please contact me. I look forward to working with you.

Sincerely,

Harry E. Taylor, P.E.
NEPA Compliance
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26505
304.285.5091
harry.taylor@netl.doe.gov

Attachments:
Figure 1 Site Location Map
Figure 2 Site Layout Map



PROJECT SITE

0 1,000 2,000

FEET

1:24,000 1" = 2,000'

BASE MAP: USGS/TNM "USA TOPO" ONLINE SERVICE LAYER
DATA SOURCES: TRC, USGS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

SITE LOCATION MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 1**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
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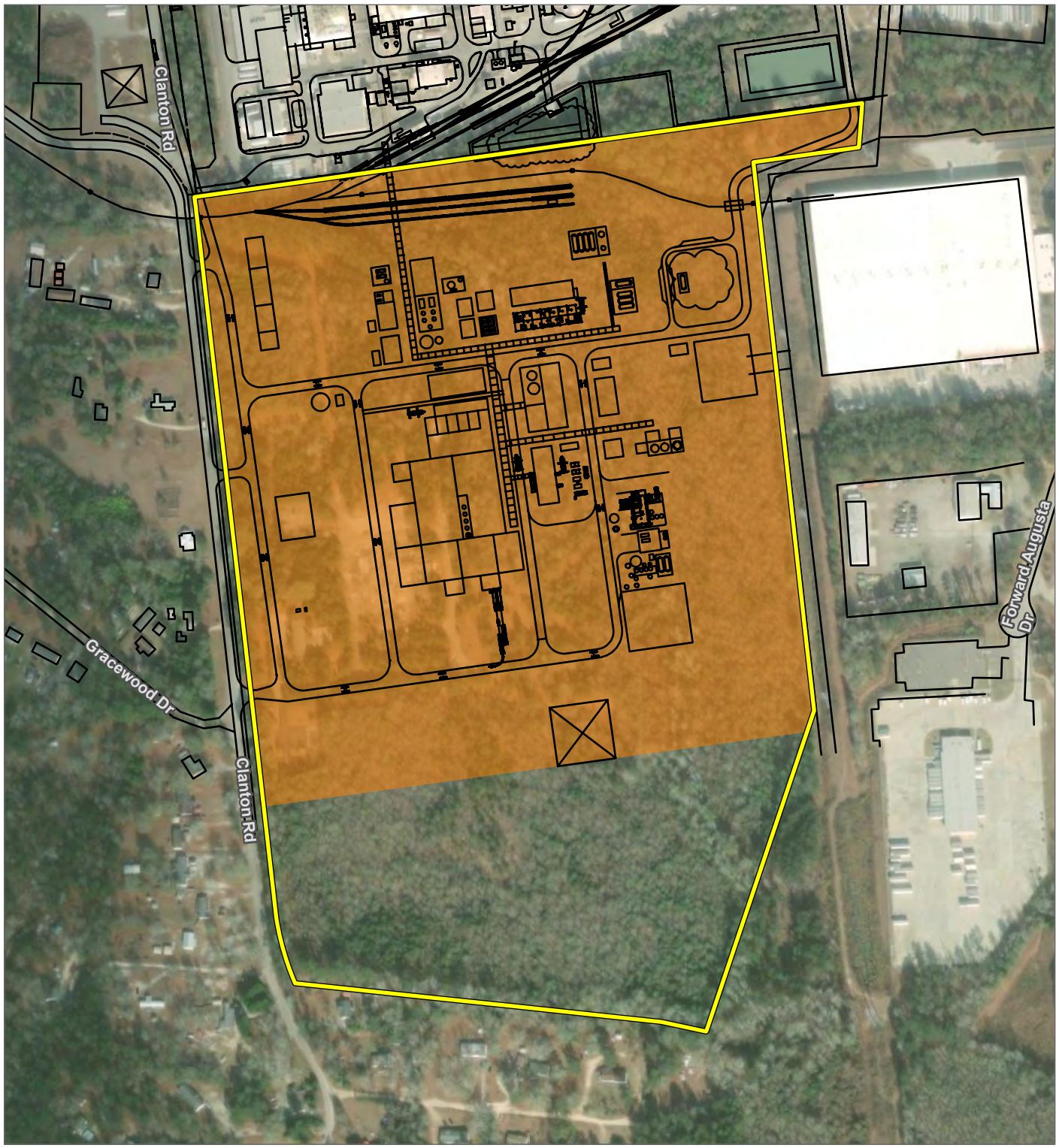
FILE: SOLVAY_SARSAPARILLA.APRX



PROJECT SITE

APPROXIMATE PROJECT LAYOUT/DESIGN

APPROXIMATE LIMIT OF DISTURBANCE

N

0 200 400

FEET

1:4,800 1" = 400'

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER
DATA SOURCES: TRC, ESRI, RICHMOND COUNTY BOARD OF ASSESSORS

PROJECT:

SOLVAY - SARSAPARILLA

TITLE:

SITE LAYOUT MAP

DRAWN BY:	R. SPRING	PROJ. NO.:	574539.0000.0000
CHECKED BY:	R. JORDAN		
APPROVED BY:	K. SUDERMAN		**FIGURE 2**
DATE:	NOVEMBER 2023		

TRC

4155 SHACKLEFORD ROAD
SUITE 225
NORCROSS, GA 30093
PHONE: 770.270.1192

FILE: SOLVAY_SARSAPARILLA.APRX

Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730

Office 803-328-2427

January 2, 2024

Attention: Harry Taylor
National Energy Technology Laboratory
3610 Collins Ferry Road, Building 26, Room 102, MS 107
Morgantown, WV 26505

Re. THPO #	TCNS #	Project Description
2024-29-14		Solvay Sarsaparilla Project

Dear Mr. Taylor,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail Caitlin.Rogers@catawba.com.

Sincerely,

Caitlin Rogers for

Wenonah G. Haire
Tribal Historic Preservation Officer

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
4751 BEST ROAD, SUITE 140
COLLEGE PARK, GEORGIA 30337

June 5, 2024

Regulatory Division
SAS-2024-00200

Mr. Alain J. DeGreef
Solvay Special Polymers, LLC
3702 Clanton Road
Augusta, Georgia 30906

Dear Mr. DeGreef:

I refer to the request received via the Regulatory Request System (RRS), dated March 1, 2024, submitted on your behalf by Resource and Land Consultants (RLC), LLC, requesting an Approved Jurisdictional Determination (AJD) for a 83.1-acre review area located in Richmond County, Georgia (latitude: 33.3627, longitude: -82.0114). This project has been assigned number SAS-2024-00200, and it is important that you reference this number in all communication concerning this matter.

We have completed a JD for the subject site. I have enclosed an "AJD Memorandum of Record," which details whether streams, wetlands and/or other waters present on the site are subject to the jurisdiction of the U.S. Army Corps of Engineers and how the Corps determined jurisdiction.

The following four (4) aquatic resources within the review area are waters of the United States and are therefore within the jurisdiction of Section 404 of the Clean Water Act (33 United States Code § 1344): *Wetland 1*; *Wetland 3*; *Intermittent Stream 1*; and *Intermittent Stream 2*. The enclosed Global Positioning System (GPS) delineation entitled, "Sarsaparilla Tract, Richmond County, Georgia, Aquatic Resource, Delineation GPS Exhibit, Prepared for: Solvay Specialty Polymers, LLC", as prepared by RLC, LLC, dated June 4, 2024, identifies the geographic limits of the jurisdictional aquatic resources within the review area. This approved JD will remain valid for a period of 5-years unless new information warrants revision prior to that date. The placement of dredged or fill material into any waterways and/or their adjacent wetlands or mechanized land clearing of those wetlands may require prior Department of the Army authorization pursuant to Section 404.

There are also nine (9) aquatic resources within the review area that are not waters of the United States and are therefore not subject to the jurisdiction of the Clean Water Act: *Wetland 2*; *Pond*; *Ephemeral Stream 1*, *Ephemeral Stream 2*, *Ephemeral Stream 3*, *Ephemeral Stream 4*; *Ditch 1*; *Ditch 2*; and *Ditch 3*. Department of the Army authorization, pursuant to Section 404 of the Clean Water Act (33 United States Code § 1344), is not required for dredge and/or fill activities in these areas. This approved JD

will remain valid for a period of 5-years unless new information warrants revision prior to that date.

You may request an administrative appeal for any approved JD under the Corps regulations at 33 Code of Federal Regulations (CFR) Part 331. Enclosed you will find a Notification of Administrative Appeal Options and Process and Request for Appeal form.

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

If you intend to sell property that is part of a project that requires Department of the Army Authorization, it may be subject to the Interstate Land Sales Full Disclosure Act. The Property Report required by Housing and Urban Development Regulation must state whether, or not a permit for the development has been applied for, issued or denied by the U.S. Army Corps of Engineers (Part 320.3(h) of Title 33 of the C.F.R.).

This communication does not convey any property rights, either in real estate or material, or any exclusive privileges. It does not authorize any injury to property, invasion of rights, or any infringement of federal, state or local laws, or regulations. It does not obviate your requirement to obtain state or local assent required by law for the development of this property. If the information you have submitted, and on which the U.S. Army Corps of Engineers has based its decision is later found to be in error, this decision may be revoked.

A copy of this letter is being provided to the following parties: Mr. Russell Parr and Mr. Alton Brown, RLC, LLC, via email at: rparr@rlandc.com and abrown@rlandc.com, respectively.

Thank you in advance for completing our on-line Customer Survey Form located at https://regulatory.ops.usace.army.mil/customer-service-survey/. We value your comments and appreciate your completion of a survey each time you interact with our office.

If you have any questions, please contact me by telephone at (678) 422-2724 or via email at justin.m.edwards@usace.army.mil.

Sincerely,

Justin M. Edwards
Project Manager, Piedmont Branch

Enclosures

Feature	Area (ac)	Length (Feet)	Jurisdictional Status
Wetland 1	1.29	-	Jurisdictional
Wetland 2	1.10	-	Non-Jurisdictional
Wetland 3	0.02	-	Jurisdictional
Wetland 4	0.35	-	Jurisdictional
Pond	0.78	-	Non-Jurisdictional
Intermittent Stream 1	0.002	33	Jurisdictional
Intermittent Stream 2	0.02	305	Jurisdictional
Ephemeral Stream 1	0.01	201	Non-Jurisdictional
Ephemeral Stream 2	0.05	660	Non-Jurisdictional
Ephemeral Stream 3	0.02	238	Non-Jurisdictional
Ephemeral Stream 4	0.02	342	Non-Jurisdictional
Ditch 1	0.01	288	Non-Jurisdictional
Ditch 2	0.01	218	Non-Jurisdictional
Ditch 3	0.02	96	Non-Jurisdictional

- Project Area: ~81.1 Acres
- Upland: ~77.40 Acres
- Wetland: ~1.66 Acres
- Non-Jurisdictional Wetland: ~1.10 Acres
- Non-Jursidictional Pond: ~0.78 Acre
- Intermittent Stream: ~0.02 Acre/~338.2 Linear Feet
- Ephemeral Stream: ~0.10 Acre/~1,441 Linear Feet
- Ditch: ~0.04 Acre/~602 Linear Feet
- GPS Point

0 150 300 600 Feet

NOTES:

-All aquatic resources depicted on this exhibit were delineated and surveyed by TRC in December 2023

RLC Project No.:	24-005
Figure No.:	8
Prepared By:	MW
Sketch Date:	6/3/2024
Map Scale :	1 inch = 300 feet

Sarsaparilla Tract

Richmond County, Georgia

Aquatic Resource Delineation GPS Exhibit

Prepared For: Solvay Specialty Polymers, LLC

RLC
RESOURCE+LAND CONSULTANTS
41 Park of Commerce Way, Ste 101
Savannah, GA 31405
tel 912.443.5896 fax 912.443.5898

Y:\2024 Projects\24-005 Ronald Mysona Solvay Augusta Tracts\graphics\Aquatic Resource Exhibit.mxd

Source(s): 2018 Chatham County NAIP Ortho Aerial

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
4751 BEST ROAD, SUITE 140
COLLEGE PARK, GEORGIA 30337

SAS-2024-00200 June 5, 2024

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023) , SAS-2024-00200

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.[1] AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.[2] For the purposes of this AJD, we have relied on section 10 of the Rivers and Harbors Act of 1899 (RHA),[3] the Clean Water Act (CWA) implementing regulations published by the Department of the Army in 1986 and amended in 1993 (references 2.a. and 2.b. respectively), the 2008 *Rapanos-Carabell* guidance (reference 2.c.), and other applicable guidance, relevant case law and longstanding practice, (collectively the pre-2015 regulatory regime), and the *Sackett* decision (reference 2.d.) in evaluating jurisdiction.

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. The features addressed in this AJD were evaluated consistent with the definition of “waters of the United States” found in the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. This AJD did not rely on the 2023 “Revised Definition of ‘Waters of the United States,’” as amended on 8 September 2023 (Amended 2023 Rule) because, as of the date of this decision, the Amended 2023 Rule is not applicable Georgia due to litigation.

[1] 33 CFR 331.2.
[2] Regulatory Guidance Letter 05-02.
[3] USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

1. SUMMARY OF CONCLUSIONS.

    a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).

Name of Aquatic Resource	JD or Non-JD	Section 404/Section 10
Wetland 1	JD	Section 404
Wetland 2	Non-JD	N/A
Wetland 3	JD	Section 404
Wetland 4	JD	Section 404
Pond	Non-JD	N/A
Intermittent Stream 1	JD	Section 404
Intermittent Stream 2	JD	Section 404
Ephemeral Stream 1	Non-JD	N/A
Ephemeral Stream 2	Non-JD	N/A
Ephemeral Stream 3	Non-JD	N/A
Ephemeral Stream 4	Non-JD	N/A
Ditch 1	Non-JD	N/A
Ditch 2	Non-JD	N/A
Ditch 3	Non-JD	N/A

2. REFERENCES.

    a. Final Rule for Regulatory Programs of the Corps of Engineers, 51 FR 41206 (November 13, 1986).

    b. Clean Water Act Regulatory Programs, 58 FR 45008 (August 25, 1993).

    c. U.S. EPA & U.S. Army Corps of Engineers, Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States* (December 2, 2008)

    d. *Sackett v. EPA*, 598 U.S. _, 143 S. Ct. 1322 (2023)

3. REVIEW AREA:

    a. 83.1 acres
    b. Latitude: 33.3627, Longitude: -82.0114
    c. Augusta
    d. Richmond County
    e. Georgia
    f. The oldest historical aerial imagery available of the review area was dated 1971. The aerial imagery indicates that the subject property was of agricultural use during that time. Between the fields, the corridor of a drainage feature is made visible by an associated tree line. Historic topographic maps and historic aerial

imagery indicate that the drainage feature was a ditch, constructed between 1948 and 1971 by a previous property owner in order to accommodate the growth of upland crops. The corridor leads to an area that was left forested and undeveloped, located within the southeastern limits of the subject property. Circa 1981, development occurred on the western portion of property to accommodate a different land use. Although railroad infrastructure is not present on topographic imagery until 2011, historic aerial imagery indicates that the railways were constructed in conjunction with the initial development. An easterly railroad traverses the northern portion of the site and a southerly rail spur traverses down the western portion of the property along the development. Outside of the western development, the remainder of the site was allowed to naturalize and revegetate, including the corridor of the drainage feature.

4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), INTERSTATE WATER, OR THE TERRITORIAL SEAS TO WHICH THE AQUATIC RESOURCE IS CONNECTED:

   a. The nearest TNW to the subject water is the Savannah River, located approximately 6 linear kilometers to the east.

   b. Determination based on: This determination was made based on a review of desktop data resources listed in Section 9 of this memorandum and a review of the SAS Section 10 list (for a water body that is navigable-in-fact under federal law for any purpose (such as Section 10, RHA)), that water body categorically qualifies as a Section 404 "traditional navigable water" subject to CWA jurisdiction under 33 CFR 328.3(a)(1)), and documented occurrences of boating traffic on the identified water. Further, the Savannah River is an aquatic feature that serves as the interstate boundary between Georgia and South Carolina.

5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, INTERSTATE WATER, OR THE TERRITORIAL SEAS.

   The subject aquatic resources located within the review area flow south out of the property for approximately one kilometer and into McDade Pond, an impoundment of Spirit Creek. From the outlet of McDade Pond, Spirit Creek flows primarily eastward for approximately 12 kilometers into the Savannah River.

6. SECTION 10 JURISDICTIONAL WATERS[4]: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with

[4] 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.

Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10. N/A

7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the pre-2015 regulatory regime. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.

   a. TNWs (a)(1): N/A

   b. Interstate Waters (a)(2): N/A

   c. Other Waters (a)(3): N/A

   d. Impoundments (a)(4): N/A

   e. Tributaries (a)(5):

Name of Aquatic Resource	**Size**	**Flow Regime and additional description of the tributary**	**Method for determining flow regime**
Intermittent Stream 1	33 linear feet (0.002-acre)	Intermittent; See further explanation below table.	observed flow during site visit during normal precipitation conditions
Intermittent Stream 2	305 linear feet (0.02-acre)	Intermittent; See further explanation below table.	observed flow during site visits during normal and dryer than normal precipitation conditions

Intermittent Stream 1 (I1) is located in the northeastern limits of the subject property. It is limited to a 33-foot reach that crosses a narrow portion of the site and then flows south out of the property. I1 is associated with a relict tributary of Spirt Creek, indicated by NHD and historic topographic maps to have been historically perennial. The original alignment of the tributary was manipulated/channelized in conjunction with development

east of the property. I1 is a relatively permanent stream that is a tributary of Spirt Creek. Therefore, it meets the definition of an (a)(5) water.

Intermittent Stream 2 (I2) is located in the southeastern portion of the property. I2 is located below the corridor of the historic ditch, in a portion of the property that remained forested during the agricultural practices. It drains offsite into a lower reach of I1. I2 is a relatively permanent stream that is a tributary of Spirit Creek. Therefore, it meets the definition of an (a)(5) water.

f. The territorial seas (a)(6): N/A

g. Adjacent wetlands (a)(7):

Name of Aquatic Resource	**Size (in acres)**	**Contiguous with or abutting? If so, list water**	**Describe continuous surface connection**
Wetland 1	1.29 acres	No	W1 is connected via a culverted rail crossing to an RPW (I1).
Wetland 3	0.02-acre	No	W3 is connected via a stormwater basin (with culverts), an adjacent wetland, and ephemeral channel to an RPW (I2)
Wetland 4	0.35 acres	No	W4 is connected via an ephemeral channel to stream RPW (I2).

Wetland 1 (W1) is located in the northwestern limits of the property. Like I1, it is associated with a relict tributary of Spirt Creek. W1 drains under the northern rail line and into I1. W1 is a wetland that has a continuous surface connection (CSC) from its connection to an RPW by a discrete feature (culvert). Therefore, it meets the definition of an (a)(7) water.

Wetland 3 (W3), like Ephemeral Stream 3 (E3) and Pond, is assumed to be a result of the established stormwater management for the western development. W3 drains southeast to Pond's culverted inlet. From the inlet, the surface connection continues through Pond (for approximately 250 feet) and its outlet into Wetland 4 (W4). W4 drains into I2 (an RPW) via an ephemeral channel, Ephemeral Stream 2 (E2). W3 is a wetland that has a CSC from its connection to an RPW by a series of discrete features (including stormwater structures, a wetland, and ephemeral channel). Therefore, it meets the definition of an (a)(7) water.

Wetland 4 (W4) is located in the southeastern limits of the property. Historically, like I2, W4 was located within the forested area, below the drainage feature. W4 is currently fed by stormwater that flows from the developed portions of the property located northwest of it. W4 drains into I2 via an ephemeral channel, E2. W4 is a wetland that has a CSC from its connection to an RPW by a discrete feature (ephemeral channel). Therefore, it meets the definition of an (a)(7) water.

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

a. Describe aquatic resources and other features within the review area identified as "generally non-jurisdictional" in the preamble to the 1986 regulations (referred to as "preamble waters").[5] Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA as a preamble water.

Name of excluded feature	**Size**	**Specific exclusion a-e**
Ditch 1	288 linear feet (0.01-acre)	a: Non-tidal drainage and irrigation ditches excavated on dry land.
Ditch 2	218 linear feet (0.01-acre)	a: Non-tidal drainage and irrigation ditches excavated on dry land.
Ditch 3	96 linear feet (0.02-acre)	a: Non-tidal drainage and irrigation ditches excavated on dry land.
Pond	0.78-acre	c: Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.

Ditch 1 (D1) and Ditch 2 (D2) are located in the northwestern portion of the property and are directly associated with the northern rail line. Ditch 3 (D3) is located along the eastern side of the western rail spur, in the center of the site. All three ditches currently have limited structure, assumed to be due to a lack of maintenance. Further, they do not possess a presence of water. The ditches were constructed in uplands for the purpose of non-tidal drainage. Therefore, they meet the definition of (*a*) preamble waters.

Pond is located between the developed western portion of the site and undeveloped eastern portion of the site. Historic aerial imagery indicates that the features were not present until 1981. It appeared in conjunction with the development. Pond drains through its eastern berm towards W4. During the Corps site visit, water was observed upgradient of the inlet pipe of Pond and below the outlet of Pond. However, no water was present within the limits of the feature. Further, the feature was composed of upland soils and vegetation. It is assumed that water primarily traverses subsurface through the footprint of the pond and emerges at its outlet. Pond is understood to be an artificial feature excavated in dry land for the purpose of managing stormwater from the adjacent development. Therefore, it meets the definition of a (c) preamble water.

b. Describe aquatic resources and features within the review area identified as "generally not jurisdictional" in the *Rapanos* guidance. Include size of the aquatic resource or feature within the review area and describe how it was determined to

[5] 51 FR 41217, November 13, 1986.

be non-jurisdictional under the CWA based on the criteria listed in the guidance. N/A

c. Describe aquatic resources and features identified within the review area as waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA. Include the size of the waste treatment system within the review area and describe how it was determined to be a waste treatment system. N/A

d. Describe aquatic resources and features within the review area determined to be prior converted cropland in accordance with the 1993 regulations (reference 2.b.). Include the size of the aquatic resource or feature within the review area and describe how it was determined to be prior converted cropland. N/A

e. Describe aquatic resources (i.e. lakes and ponds) within the review area, which do not have a nexus to interstate or foreign commerce, and prior to the January 2001 Supreme Court decision in "*SWANCC*," would have been jurisdictional based solely on the "Migratory Bird Rule." Include the size of the aquatic resource or feature, and how it was determined to be an "isolated water" in accordance with *SWANCC*. N/A

f. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the pre-2015 regulatory regime consistent with the Supreme Court's decision in *Sackett* (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).

Name of excluded feature	**Size**	**Type of resource generally not jurisdictional**
Ephemeral Stream 1	201 linear feet (0.01-acre)	Tributary lacks relatively permanent, standing or continuously flowing water
Ephemeral Stream 2	660 linear feet (0.05-acre)	Tributary lacks relatively permanent, standing or continuously flowing water
Ephemeral Stream 3	238 linear feet (0.020-acre)	Tributary lacks relatively permanent, standing or continuously flowing water
Ephemeral Stream 4	342 linear feet (0.2-acre)	Tributary lacks relatively permanent, standing or continuously flowing water
Wetland 2	1.10 acres	Wetland lacks a continuous surface connection to waters of the US

Based on historic imagery, Ephemeral Stream 1 (E1), Ephemeral Stream 2 (E2), Ephemeral Stream 4 (E4) are assumed to have been historically connected as a single drainage feature (ditch), constructed (in between 1948 and 1971) by a previous property owner in order to accommodate the growth of upland crops. The features are channelized and are primarily absent of water. During the Corps site visit, the footprint

of the original drainage feature between E2 and E4 contained was predominately indiscernible from the surrounding woodland. Ephemeral 3 (E3) was constructed in conjunction with Pond, in order provide stormwater management for the western development. During the site visit, no water was present in the feature. The ephemeral streams lack relatively permanent, standing or continuously flowing water and are assumed to only contain/convey water in response to precipitation events. Therefore, they do not meet the definition of (a)(5) waters.

The current footprint of Wetland 2 (W2) was not present on 1971 aerial imagery, as the area was primarily composed of crops. It is believed that W2 formed as a result of the drainage feature's degradation/lack of maintenance, after the land was no longer used for agriculture. Wetland 2 would be assumed to have a surface connection to downstream waters via E2. However, during the Corps site visit, around the southern limits of W2 and further downgradient, E2 was observed to have four consecutive locations where the feature loses form and channel is not discernible from the surrounding woodlands. The four locations have been determined to undermine E2 capacity to serve as a continuous surface connection (CSC):

1. The feature lost form, making it difficult to distinguish it from the surrounding woodlands.
2. After regaining some discernible form, two trees were observed in the center of the channel.
3. The channel had a segment that was completely filled with earth/sediment and which was topped with leaf litter.
4. The feature temporarily lost form again, making it difficult to discern from the surrounding woodlands.

Further downgradient of the breaks, a channel (E4) becomes clearly discernible form where it traverses through W4 and into I2.

9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.

   a. Office (desktop) determination: March-May, 2024
   b. Field determination(s): December 2023 (Agent); February 29, 2024 (Agent); April 15, 2024 (CESAS-RDP and Agent)
   c. Data sources used to support this determination (included in the administrative record).
      ☒ Aquatic Resources delineation submitted by, or on behalf of, the requestor: Figure No.: 8: Aquatic Resource, Delineation GPS Exhibit, dated 03/01/2024, provided on PDF page 9 of the AJD Request

☐ Aquatic Resources delineation prepared by the USACE: Title and Date
☒ Wetland field data sheets: Wetland data forms and associated photographs, dated 12/01/2023, included on PDF pages 10 – 65 of the provided AJD Request
☐ OHWM data sheets prepared by the USACE: Title and Date
☐ Previous JDs (AJD or PJD) addressing the same (or portions of the same) review area: ORM Numbers and Dates
☒ Photographs: Wetland data forms and associated photographs, dated 12/01/2023, included on PDF pages 10 – 65 of the provided AJD Request; and Mapped Photo Log, completed by CESAS-RDP, dated 04/15/2024.
☒ Aerial Imagery: Aerial Imagery with added demarcations of field observations, accessed from the National Regulatory Viewer by CESAS-RDP on 05/02/2024.
☒ LIDAR: LIDAR imagery (3DEP Slope, 3DEP DEM, and 3DEP Hillshade) with added demarcations of field observations, accessed from the National Regulatory Viewer by CESAS-RDP on 05/02/2024.
☒ USDA NRCS Soil Survey: Figure No.: 3: NRCS Soil Survey, dated 03/01/2024, provided on PDF page 4 of the AJD Request; and USDA hydric soil rating data, accessed by CESAS-RDP on 03/26/2024.
☒ USFWS NWI maps: Figure No.: 4: National Wetlands Inventory, dated 03/01/2024, provided on PDF page 5 of the AJD Request.
☒ USGS topographic maps: Historic topographic maps, accessed by CESAS-RDP in April 2024.
☒ USGS NHD data/maps: NHD data, accessed from the National Regulatory Viewer by CESAS-RDP on 03/26/2024.
☐ Section 10 resources used: Title and Dates
☐ NCDWR stream identification forms
☒ Antecedent Precipitation Tool Analysis: List Date(s) 12/01/2023 (Normal Conditions); 02/29/2024 (Normal Conditions); and 04/15/2024 (Drier than Normal Conditions)
☒ Other sources of Information: Figure No.: 1: Project Location, dated 03/01/2024, provided on PDF page 2 of the AJD Request; and StreamStats accessed data by CESAS-RDP in April 2024

10. OTHER SUPPORTING INFORMATION. N/A

11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL		
Applicant: Solvay Special Polymers, LLC	File Number: SAS-2024-00200	Date: June 5, 2024
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 C.F.R. § Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit.

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. The division engineer must receive this form within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT		
REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)		
ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.		
POINT OF CONTACT FOR QUESTIONS OR INFORMATION:		
If you have questions regarding this decision and/or the appeal process you may contact: Mr. Justin M. Edwards Project Manager US Army Corps of Engineers, Savannah District Piedmont Branch (CESAS-RDP) 4751 Best Road, Suite 140 College Park, Georgia 30337 Phone: (678) 422-2724 Email: Justin.M.Edwards@usace.army.mil	If you only have questions regarding the appeal process you may also contact: Ms. Krista Sabin Administrative Appeal Review Officer CESAD-PDS-O 60 Forsyth Street Southwest, Floor M9 Atlanta, Georgia 30303-8803 Phone: (904) 314-9631; FAX (404) 562-5138 Email: Krista.D.Sabin@usace.army.mil	
RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.		
_____ Signature of appellant or agent.	Date:	Telephone number:

Appendix C. Interim Action Memorandum of Understanding

August 16, 2023

Ines Stuckert
Project Manager
Solvay Specialty Polymers, LLC USA
4500 McGinnis Ferry Rd
Alpharetta, GA 30005-3914

RE: Interim Action(s) within the scope of an ongoing Environmental Assessment prior to issuance of a Finding of No Significant Impact (FONSI) for the Polyvinylidene Fluoride (PVDF) Production Plant Project

Dear Ines Stuckert:

In accordance with criteria established by the Council on Environmental Quality in its regulations implementing the procedural provisions of the National Environmental Policy Act (NEPA)(40 CFR Parts 1500-1508), DOE's NEPA implementing regulations (10 CFR Part 1021), which rely on those criteria, and DOE Order 451.1B, *National Environmental Policy Act Compliance Program*, our office has reviewed the Environmental Questionnaire submitted and found it acceptable to proceed with the following project tasks from the enclosed Statement of Project Objectives:

Task Number	Task Title	Nature of Task Activities (*PM to succinctly describe the work proposed. E.g. desktop analysis, permitting, lab-scale R&D, etc.*
0.0	Project Management and Planning	Develop and Maintain Project Management Plan (PMP)
0.1	Kick-off Meeting	Kick off meeting with DOE within 30 days of project initiation
0.2	Project Controls	Cost reporting/forecasting budget approved. Progress measurement for Engineering, Procurement, and Construction phases.
1.1	Front End Engineering and Design	Complete Heat and Material Balance for design. Finalize P&IDs for design. Complete basis of Design report. Complete all Engineering.
1.2	Risk Assessment	Develop/Issue Environment RA. Develop/Issue Process RA
1.3	Baseline Cost and Schedule Definition for Project Controls	Develop/Issue Capital Cost Estimate. Develop/Issue Project Schedule
1.4	Engineering and Design Execution	Conduct Design Reviews. Issue FEED. Design execution from GO status approval
1.5	Permitting Planning and Applications	Air/Discharge Permit. Construction Building Permit application

3610 Collins Ferry Road, Morgantown, WV 26505
fred.pozzuto@netl.doe.gov Phone (304) 285-5219 www.netl.doe.gov

1.6	Critical Equipment Procurement	Critical Equipment bids issued. Bid awards for Critical Equipment
1.7	Early Site Preparation	Early phase cleaning and foundations demolition. **Not Covered Under this Interim Action Memorandum**

These tasks include administrative work, paper studies, analysis, permitting, planning, and laboratory-scale work at existing facilities. Any tasks or portions of tasks not noted above are not considered to be interim actions, and potential environmental impacts of these activities must be evaluated with the Environmental Assessment (EA) planned for this project. Construction, groundbreaking, land disturbances, or other related activities not noted above are not authorized under this interim action memorandum. Proceeding with any tasks not noted above prior to the issuance of a FONSI will put federal funding for this award at risk, and such costs may not be recognized as allowable cost share.

Although the tasks discussed in the above paragraph would take place prior to DOE's completion of the EA for the entire project (*wherein a more thorough and extensive review will be conducted)*, DOE has determined that completing these tasks would not have an adverse environmental impact; nor would it limit the choice of reasonable alternatives for the project. It is therefore acceptable for you to proceed with these tasks.

The activities detailed within this interim action will need to be further documented and included in the upcoming EA. This interim action memorandum will be included as an Appendix in the upcoming EA and become part of the official record. Please contact Harry Taylor, NEPA Compliance Officer at 304.285.5091, or Fred Pozzuto at 304.285.5219 if you have questions concerning this interim action memorandum.

Sincerely,

Harry E. Taylor, P.E.
NEPA Compliance Officer

Fred Pozzuto, P.E.
Director, NETL NEPA Division

Enclosure: MS0000008 Solvay Specialty Polymers, LLC USA SOPO

cc: Michael Hines, MESC HQ
Hank Hinkle, MESC HQ
Angela Harshman, NETL

July 30, 2024

Ines Stuckert
Project Manager
Synesqo (formally Solvay Specialty Polymers, LLC USA)
4500 McGinnis Ferry Rd
Alpharetta, GA 30005-3914

RE: Interim Action(s) within the scope of an ongoing Environmental Assessment prior to issuance of a Finding of No Significant Impact (FONSI) for the Polyvinylidene Fluoride (PVDF) Production Plant Project

Dear Ines Stuckert:

In accordance with criteria established by the Council on Environmental Quality in its regulations implementing the procedural provisions of the National Environmental Policy Act (NEPA)(40 CFR Parts 1500-1508), DOE's NEPA implementing regulations (10 CFR Part 1021), which rely on those criteria, and DOE Order 451.1B, *National Environmental Policy Act Compliance Program*, our office has reviewed the Environmental Questionnaire submitted and found it acceptable to proceed with these additional project tasks from the Statement of Project Objectives (SOPO):

Task Number	**Task Title**	**Nature of Task Activities (*PM to succinctly describe the work proposed. E.g. desktop analysis, permitting, lab-scale R&D, etc.***
2.1	Final Engineering & Design – Issued for Construction	Subtask 2.1.1 – Civil, Structural and Architectural IFC Drawings and Specifications Subtask 2.1.2 – Mechanical IFC Drawings and Specifications Subtask 2.1.3 – Electrical and Instrumentation IFC Drawings and Specifications Subtask 2.1.4 – Fire Protection IFC Drawings and Specifications
2.2	Balance of Plant Equipment Procurement	Subtask 2.2.1 – Balance of Plant (BOP) Equipment Procurement Subtask 2.2.2 – Electrical Gear Procurement Subtask 2.2.3 – Instrumentation and Controls System Procurement
2.3	Field Construction Contractor Procurement	Subtask 2.3.1 – Bid and Award Site Civil & Foundations Contract Subtask 2.3.2 – Bid and Award Structural Steel Installation and Equipment Setting Subtask 2.3.3 – Bid and Award Mechanical Piping Contract Subtask 2.3.4 – Bid and Award Electrical & Instrumentation Contract

3610 Collins Ferry Road, Morgantown, WV 26505
fred.pozzuto@netl.doe.gov Phone (304) 285-5219 www.netl.doe.gov

		Subtask 2.3.5 – Bid and Award Fire Protection and Detection Contract

These tasks include preparation of drawings and specifications, equipment procurement, and bidding contracts. Any tasks or portions of tasks not noted above (except for the tasks listed in the original Interim Action Memo dated 9.16.2023) are not considered to be interim actions, and potential environmental impacts of these activities must be evaluated with the Environmental Assessment (EA) planned for this project. As stated in the previous Interim Action Memo; Task 1.7 – Early Site Preparation: Subtask 1.7.1 – "Early Phase clearing and Foundations demolition The Recipient will initiate early phase cleaning and foundations demolition" is not authorized under this interim action memorandum. Construction, groundbreaking, land disturbances, or other related activities not noted above are not authorized under this interim action memorandum. Proceeding with any tasks not noted above prior to the issuance of a FONSI will put federal funding for this award at risk, and such costs may not be recognized as allowable cost share.

Although the tasks discussed in the above paragraph would take place prior to DOE's completion of the EA for the entire project (*wherein a more thorough and extensive review will be conducted)*, DOE has determined that completing these tasks would not have an adverse environmental impact; nor would it limit the choice of reasonable alternatives for the project. It is therefore acceptable for you to proceed with these tasks.

The activities detailed within this interim action will need to be further documented and included in the upcoming EA. This interim action memorandum will be included as an Appendix in the upcoming EA and become part of the official record. Please contact Harry Taylor, NEPA Compliance Officer at 304.285.5091, or Fred Pozzuto at 304.285.5219 if you have questions concerning this interim action memorandum.

Sincerely,

Harry E. Taylor, P.E.
NEPA Compliance Officer

Fred Pozzuto, P.E.
Director, NETL NEPA Division

Enclosure: MS0000008 Synesqo SOPO

cc: Michael Hines, MESC HQ
Sue Miltenberger, NETL, Contracting Officer
Angela Harshman, NETL
Phillip McCray, Disciplines Engineering Manager, Synesqo

Appendix D. Unanticipated Discovery Plan

Appendix D. Unanticipated Discovery Plan

Plan for the Unanticipated Discovery of Cultural Resources or Human Remains

1.0 Introduction

Solvay Specialty Polymers USA, LLC (a member of the Syensqo Group, "Syensqo" in this document) is presenting the following Plan for the Unanticipated Discovery of Cultural Resources or Human Remains (Plan) that may be found during construction of the Sarsaparilla Project. This Plan describes procedures to ensure that any potentially significant archaeological resources discovered during construction, including human remains, are dealt with in full compliance with applicable regulations. More specifically, this Plan describes procedures to:

- Ensure that any potentially significant archaeological resources discovered during construction, including human remains, are dealt with in full compliance with applicable regulations.

- The Plan is intended to be consistent with federal regulations at 36 CFR 800.11, Protection of Historic and Cultural Properties.

- The Plan is intended to be consistent with The Georgia *Abandoned Cemeteries and Burial Grounds Act* (§36-72-1 et seq.) which makes it a felony to destroy, damage, remove, or desecrate human remains, as well as to vandalize, destroy, deface, or otherwise damage graveyards, tombs, mausoleums, gravestones, memorial monuments, and markers. The law provides broad protection to white, Black, and Native American graves.

- In Georgia, accepted practice involves immediate notification of appropriate officials, and development of discovery-specific procedures in consultation with the Georgia Historic Preservation Department (SHPO), State and local police, and medical officials.

- Ensure that procedures and lines of communication with the appropriate agencies are clearly established prior to the start of construction. In this manner, any discoveries can be addressed in a timely manner with minimal impact to construction schedules as well as cultural resources.

2.0 Procedures for Unanticipated Discoveries

All construction personnel working on the Sarsaparilla Project a will be instructed to initiate the following procedures in the event that unanticipated historic properties or human remains are encountered during construction.

Unanticipated discoveries that trigger initiation of the following procedures include:

- Prehistoric middens, lithic and ceramic artifacts;
- Human and animal bone;
- Historic artifacts, including glass, metal, and other items;
- Remnants of brick or rock walls of historic structures and improvements;

Part of the routine duties of construction personnel will involve examination of trenches, building excavations and/or spoil piles for evidence of artifacts or human remains. The following procedures will be initiated in the event of discovering unanticipated historical properties or human remains.

2.1 Unanticipated Cultural Resources

Construction contractor personnel involved in unanticipated discoveries of historic properties immediately must suspend activities that could affect the integrity of the discovery and must notify the Construction Manager. Notification includes information about the specific location of the construction area and the nature of the discovery. The Construction Manager involved in unanticipated discoveries of historic properties must immediately direct construction contractors to stabilize the area and suspend activities that could affect the integrity of the discovery.

If any artifacts or historic property remains are discovered in an area that was not previously cleared for construction, the Construction Manager will inform a designated Syensqo contact who will authorize a certified archaeologist to review the discovery. Any personnel with information on the discovery will discuss the location and nature of the discovery with the archaeologist. Visible barriers will be installed around the discovery area to protect it from disturbance until a decision is made.

A Project Archeologist will be given at least 3 days advance notice of ground-disturbing activities and will be on call to evaluate any potentially eligible resources inadvertently discovered during the construction process. If an archaeologist is not immediately available, and further work in the discovery is not imminent, then photographs or drawings of the discovery may be mailed, delivered or transmitted by facsimile to the archaeologist for review. Based on

the information provided, the archaeologist will determine if a visit to the area is required. If a visit is required, the archaeologist will be expected to be there within 36 hours after notification.

If on-site archaeological investigations are required, Syensqo will notify the construction contractor's Construction Manager. No work that could affect the discovery will be performed until the archaeologist reviews the discovery.

The archaeologist will determine, based on the artifacts or historic property remains discovered, and based on the cultural sensitivity of the area in general, whether the discovery is potentially significant, and whether it requires immediate notification to the Georgia SHPO and/or County Law Enforcement staff by telephone.

The archaeologist will consult and coordinate with the Georgia SHPO staff to propose procedures for treating and handling the discovery, and to clear the discovery area while minimizing impacts to the construction schedule, to the extent possible.

Suspended construction activities in the discovery area may not proceed until approval has been obtained from the Georgia SHPO staff as appropriate, following completion of the agreed discovery-specific procedures.

2.2 Human Remains

If any historic or prehistoric human remains are discovered, they will probably be discovered in excavations, below areas reached by any pre-construction archaeological investigations.

2.2.1 Guidance and Consultations

Treatment of historic or prehistoric human remains encountered during construction will be guided by:

- The policy statement adopted by the Advisory Council on Historic Preservation (Advisory Council);
- The Native American Graves Protection and Repatriation Act (NAGPRA); and
- The Georgia *Abandoned Cemeteries and Burial Grounds Act* (§36-72-1 et seq.).

Consultations should be undertaken with:

- The SHPO;
- Local police and officials; and

- Interested parties, including Native American groups identified by the SHPO.

The Advisory Council policy recommends that, to the extent allowed by law, treatment of human remains should adhere to the following principles:

- Human remains and grave goods (i.e., material intentionally interred with a human burial) should not be disintered unless required in advance of some kind of disturbance, such as construction;

- Disinterment, when necessary, should be done carefully, respectfully, completely, by archaeologists, in accordance with proper archaeological methods;

- In general, human remains and grave goods should be reburied in consultation with the descendants of the dead;

- Prior to reburial, minimal, non-destructive studies of the human remains and grave goods should be performed, and pre-approved by the descendents; and

- Studies and reburial should occur according to a definite, agreed-upon schedule.

2.2.2 Discovery, Suspension of Work, Notifications, and Procedures

If any personnel on the Sarsaparilla Project construction site discover human remains, all construction work in the immediate vicinity that could affect the integrity of the discovery will be suspended. The Construction Manager will be informed immediately, and notified of the exact location of the remains, as well as the time of discovery. The Construction Manager will notify Syensqo, who will be held responsible for retaining the services of a qualified and certified archaeologist. Syensqo will be responsible for notifying the appropriate government agency officials and other parties listed in this Plan, within 24 hours of the discovery.

Human remains may be excavated, if approved, in consultation with the Georgia SHPO, State and County law enforcement (as applicable), Native Americans and other involved agencies and parties as appropriate. Excavation of the human remains will be pursuant to any agreement between Syensqo and the involved parties that specifies the excavation methods to be used and the data to be recovered.

Any discoveries made on weekends will be protected until all of the appropriate parties have been contacted.

If it is suspected that the human remains are recent, law enforcement officials will take over that part of the investigation. Following their initial examination, they will immediately notify the coroner as to where the site or remains are located..

Suspended construction activities in the discovery area may not proceed until approval has been obtained from the Georgia SHPO staff or Law Enforcement as appropriate, following completion of the agreed discovery-specific procedures.

2.2.3 Agency Notification Telephone Numbers and Addresses

If human remains are discovered, the Georgia SHPO staff, the State Police and the appropriate Police Department will be notified within 24 hours. Contact information for various parties is provided below.

Syensqo
Contact: Michael Ray
706-829-1567
email: michael.ray@syensqo.com

Georgia State Historic Preservation Office
Region 7 Representative
Contact: Tina Hutcheson
Telephone: (404) 679-4840
email: region7@dca.ga.gov

Richmond County Sheriff Office
Contact: TBD
Telephone: 911 or (706) 821-1000

Interested Tribal Parties

Muscogee (Creek) Nation
David Hill, Principal Chief
Muscogee (Creek) Nation
1007 East Eufaula Street
Okmulgee, OK 74447

Turner Hunt, THPO
Muscogee (Creek) Nation
P.O. Box 580

Okmulgee, OK 74447

Eastern Shawnee Tribe of Oklahoma
Glenna Wallace, Chief
Eastern Shawnee Tribe of Louisiana
127 West Oneida
Seneca, MO 64865

Paul Barton, THGPO/Director of Culture Preservation Programs/NAGPRA
Eastern Shawnee Tribe of Louisiana
70500 E. 128 Road
Wyandotte, OK 74370

Coushatta Tribe of Louisiana
Jonathon Cernek, Chairman
Coushatta Tribe of Louisiana
1940 C.C. Bel Road
Elton, LA 70532

Kristian Poncho, THPO
Coushatta Tribe of Louisiana
P.O. Box 10
Elton, LA 70532

Catawba Nation
By email:
Chief Bill Harris
bill.harris@catawbaindian.net

Dr. Wenonah Haire
wenonah.haire@catawba.com

Alabama Quassarte Tribal Town
Wilson Yargee, Chief
Alabama Quassarte Tribal Town
P.O. Box 187
Wetumka, OK 74883

Ben Yahola, THPO

Alabama Quassarte Tribal Town
P.O. Box 187
Wetumka, OK 74883

Appendix E. Utility Confirmation

Georgia Power Company
960 Key St.
Macon, Ga 31204

July 2, 2024

RE: Electric Service Availability for new Syensqo plant

Adrian,
Please accept this as our letter of service availability confirming that Georgia Power Company can have the necessary electrical infrastructure in place to serve the provided loads at the new Syensqo plant site adjacent to the existing Solvay plant located at 3702 Clanton Rd., Augusta, Ga. Should you have any questions, please don't hesitate to contact us.

We look forward to working with you.

Sincerely,

Austin Arnold
Project Manager
Email: abarnold@southernco.com

UTILITIES DEPARTMENT

Wes Byne, P.E.
Director

Steve Weathersbee
Project Manager-Infrastructure

LETTER OF WATER AND SEWER AVAILABILITY

June 13, 2024

Alain De Greef
Solvay Specialty Polymers LLC member Syensqo Group
3750 Clanton Road
Augusta Ga., 30906
Phone: (706)-790-3100

We have received your inquiry regarding water and sewer availability for a proposed site at 3750 Clanton Road in, Augusta, Ga.

According to the records found, Augusta has a 14" water line on Clanton Road and there is a private 8" sewer line on the property, which are available for your site. If you would like to have these or other utilities located for the Owner/Developer and their Contractor, you will need to use the "Call before you Dig Underground Utility Locate System" (811).

Please note that this is for informational purposes only and should be used to substantiate the availability of water and sanitary sewer, for the proposed site. This letter is good for 1 year from the above-mentioned date. If the project has not been approved and/or started by the above-mentioned date, then you will need to reapply for availability. If you have any other questions, please feel free to give us a call at (706)-312-4142.

Steve Weathersbee
Project Manager-Infrastructure
Augusta Engineering Division
452 Walker Street, Suite 200
Augusta, GA 30901

From: **Corley, Carl** <icorley@southernco.com>
Date: Fri, Aug 2, 2024 at 2:00 PM
Subject: RE: Augusta Natural Gas Distribution
To: Smolarek, Jack <jack.smolarek@syensqo.com>

Jack,

System Planning states under current conditions no system improvements would be needed for the 80mcfh added load for the existing plant and the 11mcfh for the proposed new plant.

Capacity Planning states under current conditions they could pick up the added daily loads for both facilities.

Analysis could potentially change between now and 2026.

Please keep in mind if the account stays with Interruptible Delivery there would be charges to potentially upgrade the service and meter to the existing plant and install a new service and meter to the new plant.

If the customer switches to Firm Delivery they would get Allowable Investment to go towards the cost of new gas facilities.

Thanks and have a great weekend.

Carl Corley

Atlanta Gas Light Company

(706)214-0858

icorley@southernco.com