



# ENVIRONMENTAL ASSESSMENT

## Syrah Technologies LLC

### Expansion of Active Anode Material Manufacturing Facility Vidalia, Concordia Parish, Louisiana

Department of Energy, Loan Programs Office  
Title XVII Program

APRIL 2022

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**Acronyms and Abbreviations**

%	Percent
AAM	Active anode material
Act	Section 136 of the Energy Independence and Security Act of 2007
ATVM Program	Advanced Technology Vehicle Manufacturing Loan Program
BMP	Best management practice
CFR	Code of Federal Regulations
CH <sub>4</sub>	methane
CLP	carbonized leach-purified
CO	Carbon monoxide
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
DOE	U.S. Department of Energy
EA	Environmental Assessment
ECOS	Environmental Conservation Online System
e.g.	exempli gratia (Latin meaning “for example”)
EJ	environmental justice
EPA	U.S. Environmental Protection Agency
EV	Electric vehicle
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GHG	greenhouse gas
HCl	hydrogen chloride
HF	hydrogen fluoride
HFCs	hydrofluorocarbons
IDP	Inadvertent Discovery Protocol
IPaC	Information for Planning and Consultation
LPO	Loan Programs Office
LDEQ	Louisiana Department of Environmental Quality
LPDES	Louisiana Pollutant Discharge Elimination System
MSGP	Multi-Sector General Permit
NAAQS	National Ambient Air Quality Standards

NATA	National-Scale Air Toxics Assessment
NEPA	National Environmental Policy Act
NO <sub>x</sub>	Nitrogen oxides
NOI	Notice of Intent
O <sub>3</sub>	Ozone
Pb	Lead
PE	Professional Engineer
PFCs	perfluorocarbons
PM <sub>2.5</sub>	Particulate matter with a diameter of 2.5 microns or less
PM <sub>10</sub>	Particulate matter with a diameter of 10 microns or less
Project	Expansion of Syrah's existing pilot plant with a second manufacturing plant
Project Site	25-acre Project plant site
PSG	purified spherical graphite
SF <sub>6</sub>	sulfur hexafluoride
SHPO	State Historic Preservation Office(r)
SME	Subject Matter Expert
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	sulfur oxides
SPCC	Spill Prevention Control and Countermeasure Plan
SWPPP	Stormwater Pollution Prevention Plan
Syrah	Syrah Technologies LLC
U.S.	United States
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USG	unpurified spherical graphite
VOC	volatile organic compound

## 1.0 PURPOSE AND NEED

### 1.1 Purpose and Need for Agency Action

The purpose and need for agency action are to comply with the United States (U.S.) Department of Energy (DOE) mandate under Section 136 of the Energy Independence and Security Act of 2007 (Act) to select projects for financial assistance that are consistent with the goals of the Act.

Syrah Technologies LLC (Syrah) is a manufacturer of Active Anode Material (AAM), which is used in the manufacture of battery anodes for lithium-ion batteries for automotive applications, specifically for electric vehicles (EV). The company's objective is to expand its AAM plant in Vidalia, Louisiana to meet the growing demand for batteries in automotive applications.

Syrah has applied for a loan pursuant to DOE's Advanced Technology Vehicle Manufacturing Loan Program (ATVM Program), which was created by the Act to provide incentives for projects that retrofit, expand, or create manufacturing facilities in the U.S. for advanced technology vehicles or qualifying components, including engineering costs. The primary goal of the ATVM Program is to improve fuel economy for light-duty vehicles and thereby reduce ozone precursors, greenhouse gas (GHG) emissions, and particulate matter emissions associated with vehicle emissions. The ATVM Program is designed to stimulate the technology required to meet program objectives.

Syrah would use the loan to expand its existing pilot plant with a second manufacturing plant (Project) to produce AAM for automotive applications that will reduce air emissions—such as ozone precursors, particulate matter, and GHGs—that contribute to global warming, and is consistent with the primary goal of the ATVM Program. Financially supporting Syrah's Project will help bring AAM to market for the manufacture of battery anodes for lithium-ion batteries, encouraging greater use of EVs and reducing overall national emissions of air pollutants and human-caused GHGs.

### 1.2 Background

The ATVM Program is administered by DOE's Loan Programs Office (LPO). LPO originates, underwrites, and services loans to eligible automotive manufacturers and component manufacturers to finance reequipping, expanding, or establishing manufacturing facilities in the U.S. to produce Advanced Technology Vehicles and qualifying components, and the costs of associated engineering integration performed in the U.S.

To fund the expansion, Syrah has applied to the DOE ATVM Program for financial assistance. Upon review of Syrah's initial application by the DOE LPO, the application was determined to be substantially complete per the rules governing the ATVM Program in 10 Code of Federal Regulations (CFR) Part 611. Syrah was subsequently invited to enter into the LPO's due diligence process.

### 1.3 Scope of Environmental Assessment

LPO has prepared this National Environmental Policy Act (NEPA) Environmental Assessment (EA) to address new construction planned for the 25-acre site (Project Site), and to support decision making regarding whether to issue an ATVM loan to Syrah. There are several factors that influence the level of environmental review included in this EA, including that all new proposed construction will be within the existing Project Site boundaries on land that was

previously disturbed/graded during construction of the existing plant or during previous agricultural activities.

The proposed new construction will be a scale up of the unit operations that currently exist on the Project Site, and the manufacturing processes will be essentially the same. Additionally, the only new permitting actions that will be required for construction and operation are a stormwater discharge permit for construction, and a minor source air permit for operation.

This EA describes the proposed expansion and its potential impacts on multiple resource areas from construction and operation of the new facility. The resource areas assessed include:

- Cultural resources, including Native American interests
- Water resources, including wetlands, floodplains, surface water, and groundwater
- Air quality
- GHG emissions and climate change
- Noise
- Transportation
- Aesthetics and visual resources
- Threatened and endangered species
- Socioeconomics and environmental justice (EJ)
- Health and safety
- Waste management

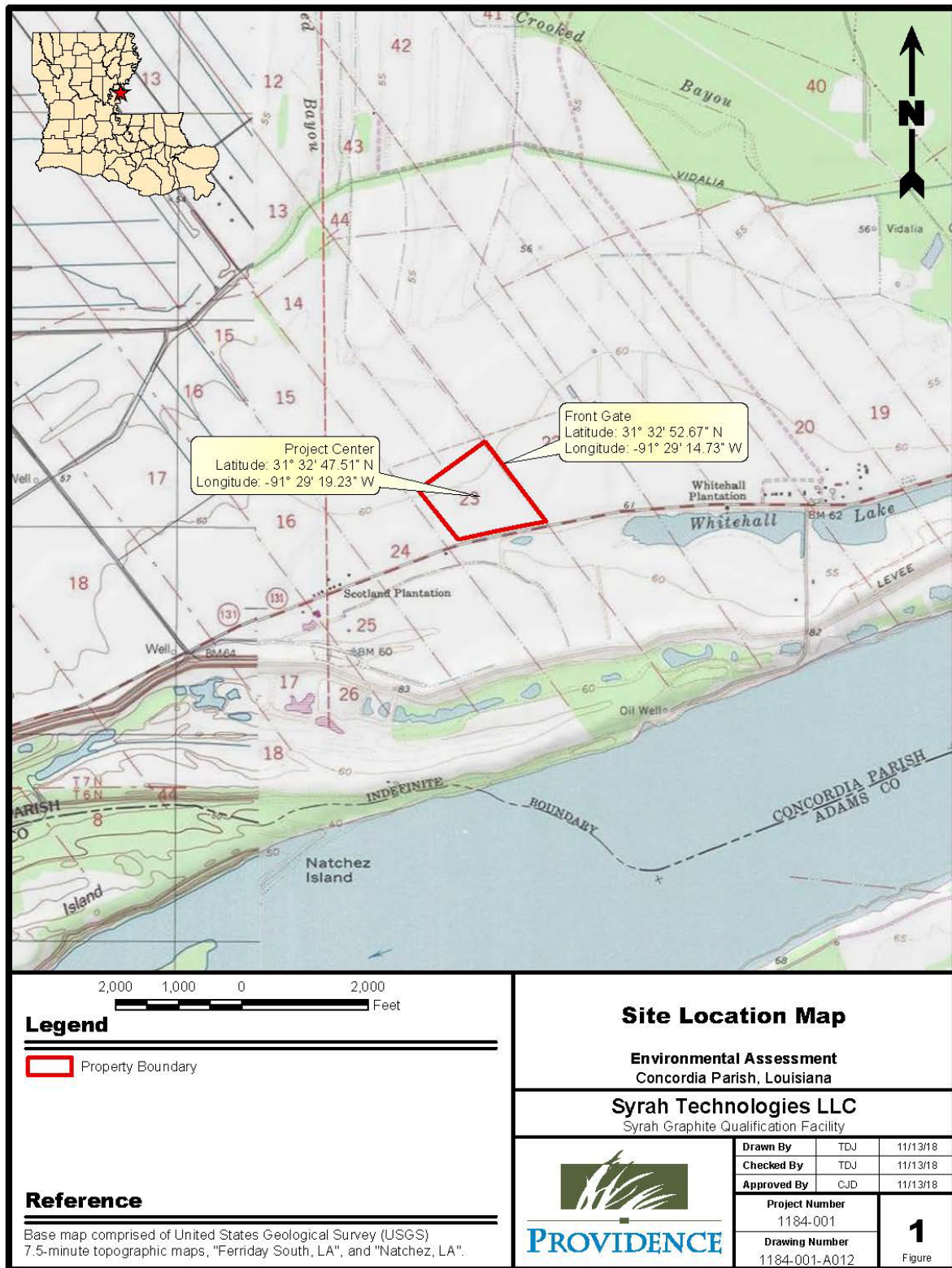
These resource areas were identified as having potential impacts as a result of the expansion, and each was assessed to determine the nature, extent, and significance of those impacts (see Section 3.0, Environmental Consequences). The assessment combined desktop research and analysis of existing available information with select field studies, including Project Site assessments related to the presence/absence of wetlands, waterbodies, and cultural resources.

Resources not included in this EA include soils and geology, land use and recreation, and terrestrial vegetation and wildlife. Because the new facility will be located away from centers of urban development and adjacent to an existing manufacturing facility within a previously disturbed property that is zoned as industrial, impacts on these resources are not anticipated and therefore not included in the scope of this EA.

## 2.0 DESCRIPTION OF THE PROPOSED ACTION

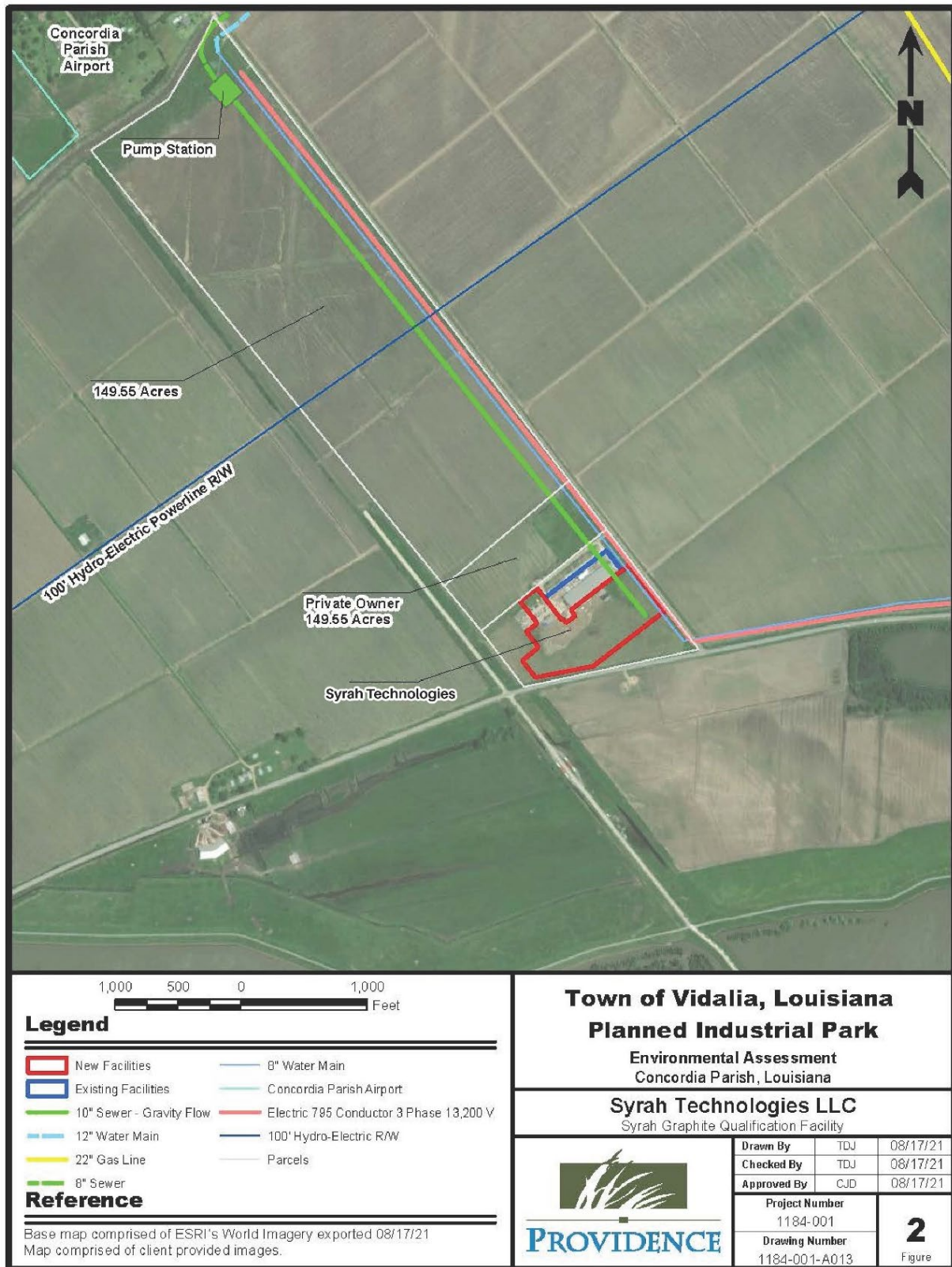
Syrah currently operates a natural graphite based AAM qualification plant on a 25-acre plot of land at the northwest corner of D.A. Biglane Road and Highway 131 in Vidalia, Louisiana (see **Figures 1 and 2**). The Project Site is situated at the southern end of the Town of Vidalia's planned industrial park. Syrah is proposing to expand its AAM manufacturing facility from a 125 metric tonne per year qualification scale facility to a commercial scale facility capable of producing 11,250 metric tonnes per year of AAM. The expanded plant will use the same process technologies that Syrah has successfully demonstrated in its existing qualification plant, but at a larger scale. The following subsections describe the construction and operation of the Project.

Figure 1: Project Site Location Map



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**Figure 2: Town of Vidalia, Louisiana Planned Industrial Park**





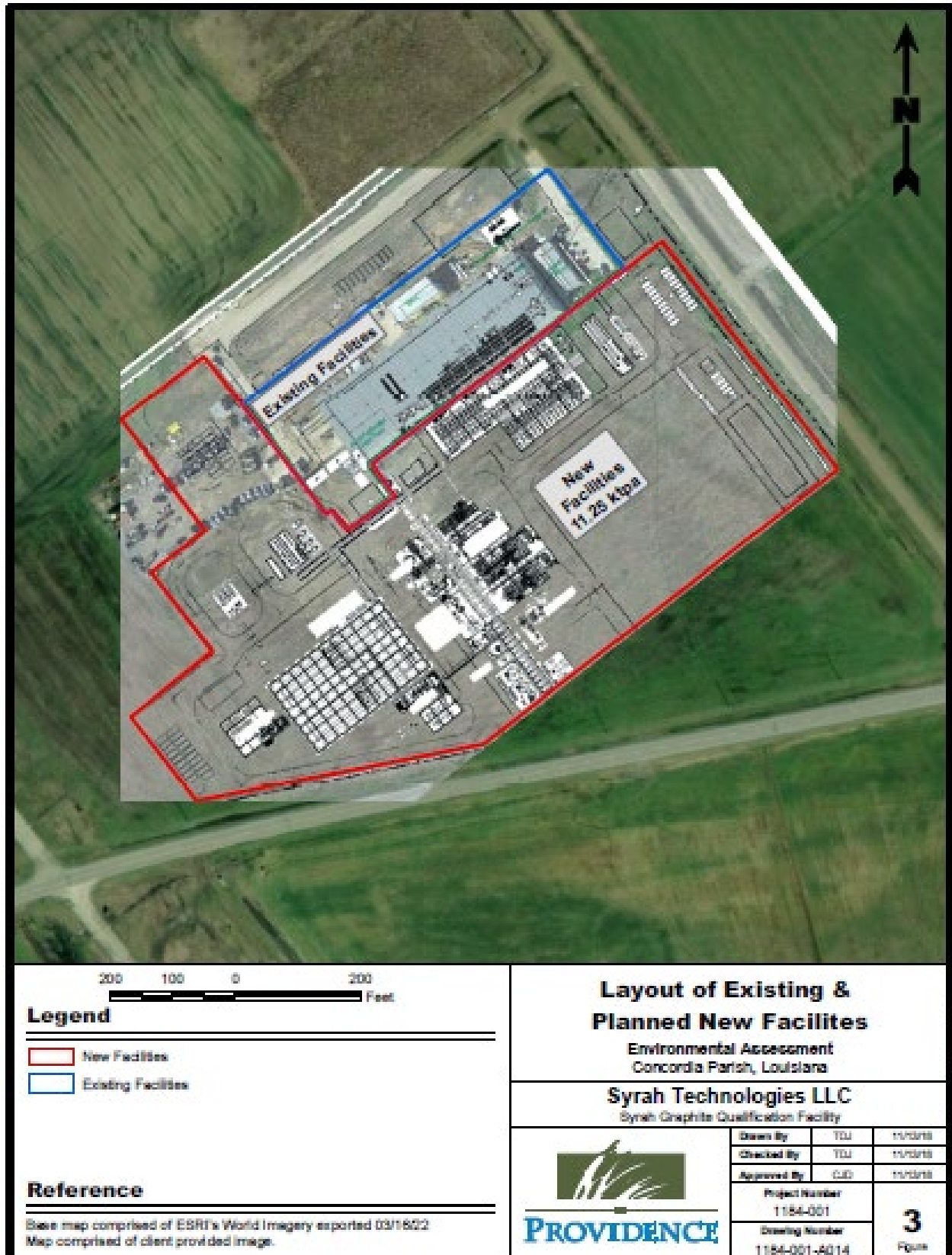
## 2.1 Construction

**Figure 3** shows the geographical relationship between the existing AAM manufacturing facility and the proposed expansion, resulting in an additional 16 acres of developed area. The proposed expansion will be contained entirely within the boundaries of the 25-acre parcel owned by Syrah. Initial Project Site preparation and construction will include the installation of temporary facilities, security fencing, access roads, parking lots, and construction laydown areas, which will be followed by earthworks (grading), and piling and foundations. Building and process structure erection will be initiated shortly thereafter. Installation of mechanical systems and process equipment, as well as the required electrical and instrumentation infrastructure, will be the final construction step leading to commissioning and the start of operations. Commissioning of plant systems is anticipated to begin in June 2023, with start-up expected in late third quarter 2023.

No upgrades or additional utilities (water, wastewater, natural gas, and electricity) will be required to support the facility expansion, and the existing services will be used. Additional entrances will be installed at the east and west ends of the property to facilitate the flow of additional vehicle traffic into the Project Site. The peak construction workforce is expected to reach approximately 150 people.

In November 2021, Syrah received a Minor Source Air Emissions Permit from the Louisiana Department of Environmental Quality (LDEQ) covering expected air emissions from the expanded facility as well as ongoing emissions from the existing qualification plant. In late December 2021, Syrah completed the development of its Stormwater Pollution Prevention Plan (SWPPP) for the construction phase of the Phase 2 Project. Syrah filed a Notice of Intent (NOI) for construction-related stormwater discharge with the LDEQ on December 28, 2021 and paid the required permit fee. By statute, the permit auto-issued 48 hours thereafter. Consequently, Syrah has secured the necessary state environmental permits to begin construction work at the Project Site. **Appendix A** provides a list of permits, approvals, and authorizations obtained for the Project.

**Figure 3: Layout of Existing and Planned New Facilities**



## 2.2 Operation

AAM is a critical material for the manufacture of anodes for lithium-ion batteries, which are used in EV, energy storage, and portable appliance applications. Syrah's commercial scale facility will require approximately 100 employees to produce 11,250 metric tonnes per year of AAM. There will be approximately 85 inbound ocean container shipments per month of flake graphite raw material, and outbound shipments of AAM product are expected to number between 45 and 55 per month. The ocean containers will arrive in the Port of New Orleans and will be transferred and loaded onto a river barge (up to 78 containers per barge) in Port Allen, Louisiana. The barge will be delivered to the Port of Vidalia, as part of a barge train that routinely travels between Port Allen and Memphis, Tennessee. The containers will then be transferred from the barge to a short haul semi-truck and delivered to the Project Site. Once emptied, the containers will be returned to the barge, which will then be delivered back to Port Allen as part of the routine barge train. The outbound AAM product shipments (45 to 55 per month) will be loaded onto long-haul tractor trailers for final delivery to customers in the U.S.

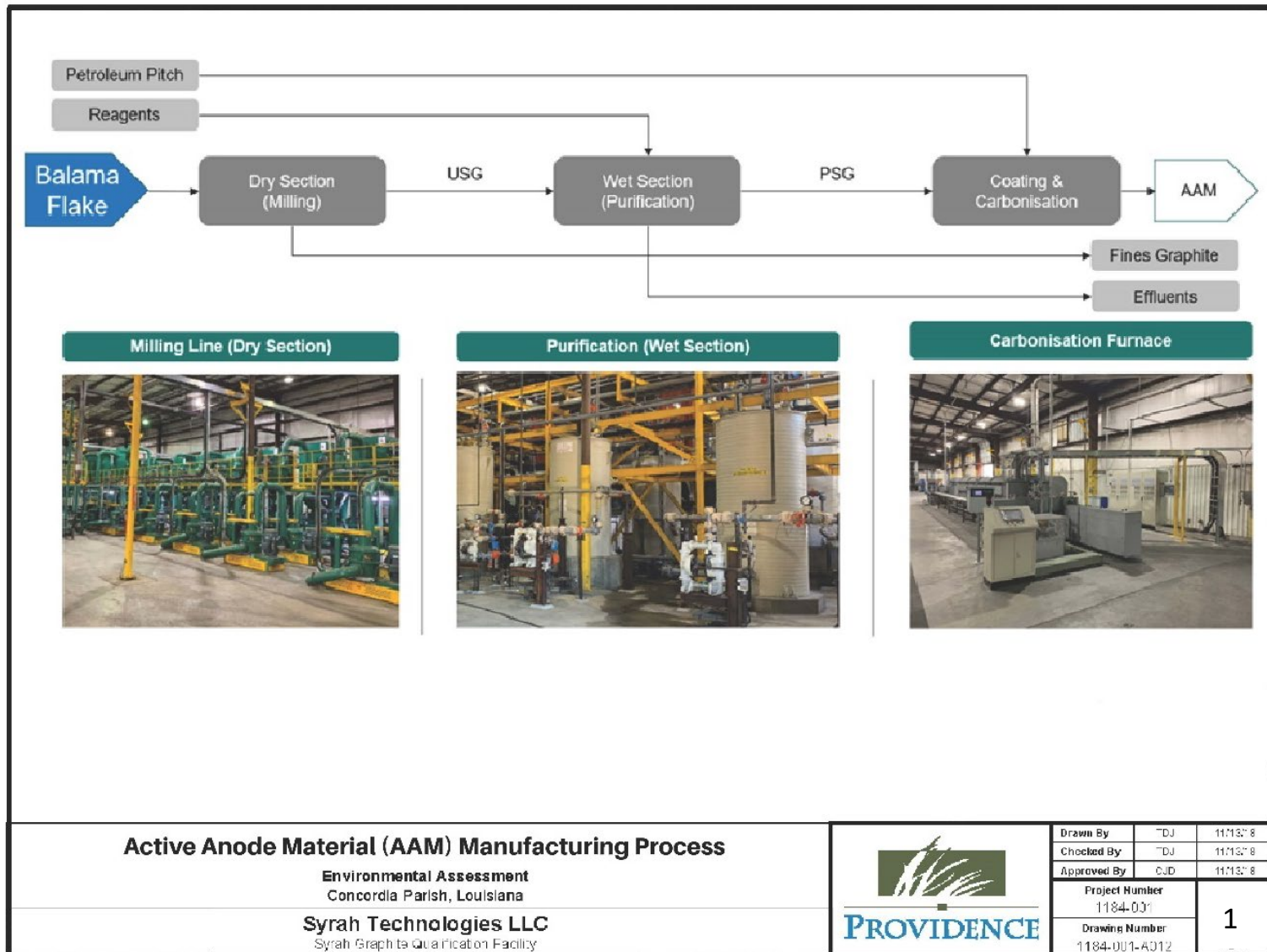
Syrah's process for processing natural flake graphite to AAM consists of four steps: (1) milling and shaping, (2) chemical purification, (3) coating, and (4) carbonization (See **Exhibit 1**). In the milling and shaping process, the raw feed material, flake graphite, is delivered in bulk bags to the plant and pneumatically transferred to feed storage bins. The flake graphite is then mechanically turned into spherical shapes (spheroidization) and classified based on the graphite particle size. Approximately 20,500 bulk bags (20,500 metric tonnes) of graphite flake will be delivered to the facility per year and processed.

Following the milling processes, spherical graphite is purified via leaching with a dilute solution of hydrogen chloride (HCl) and hydrogen fluoride (HF). This removes the graphite impurities and increases the spherical graphite grade to at least 99.95 percent carbon content. This is achieved by feeding unpurified spherical graphite (USG) through a series of leach tanks, washing the resulting graphite filter cake solids, and repulping the cakes in a dilute caustic solution to neutralize the remaining free acid. The graphite produced in this stage of the process is referred to as purified spherical graphite (PSG). The repulp cake is first filtered then washed with deionized water prior to being fed to the PSG dryer. The PSG dryer area is responsible for removing residual moisture from the PSG prior to coating and carbonization. The PSG dryer is a flash dryer type that is indirectly heated by a natural gas fired burner.

In the coating and carbonization process steps, PSG is first coated in a conical mixer with milled petroleum pitch. The pitch is then carbonized onto the surface of the PSG at high temperatures to produce a carbonized leach-purified (CLP) product. The carbonization takes place in four electric furnaces operating in parallel. Coated PSG is loaded into graphite crucibles and then conveyed to the carbonization furnace, where the crucibles move through a series of heating zones with progressively higher temperatures, followed by a cooling chamber.

The CLP product as it exits the furnace typically has agglomerated particles (masses of small particles joined together). To produce a final product, agglomerated CLP is fed through a shaker sieve system to deagglomerate the graphite and is then passed over a high-power magnet to remove any elemental iron that may be remaining on the CLP product. The final CLP product (up to 11,200 metric tonnes per year) is then packaged in supersacks for shipment to customers.

### Exhibit 1: Active Anode Material (AAM) Manufacturing Process



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## 3.0 ENVIRONMENTAL CONSEQUENCES

### 3.1 Introduction

In each of the following nine sections, a specific resource area is addressed, using both qualitative and, where applicable, quantitative information to concisely describe the nature and characteristics of the resource that may be affected by the Project as well as the potential impacts on that resource from the Project, given proposed controls. A conclusion regarding the significance of impacts is provided for each resource area.

### 3.2 Cultural Resources

A Phase I archaeological survey of the Project Site, which involved a pedestrian reconnaissance survey and systematic subsurface investigation (shovel testing), was completed on September 21, 2021. The results of the survey found that the Project would have no adverse impacts on cultural resources within the Project Site or direct physical or visual effects on historic properties in the general Project area. DOE consulted with the State Historic Preservation Office (SHPO) and on January 24, 2022 received concurrence with the conclusions of the Phase I investigation that no historic properties would be affected (See **Appendix B**).

In the event cultural resources (e.g., human remains, lithics, pottery, remnants of older construction) are discovered during Project construction, work would cease in the vicinity of the discovery and the SHPO and Louisiana State Police (in the case of human remains) would be notified immediately. Construction activities would resume only upon approval from the SHPO. To offer guidance, Syrah has developed an Inadvertent Discovery Protocol (IDP) for the Project, which has been incorporated into its Project Execution Plan on file in the onsite project and construction management team office.

Because of the absence of adverse impacts on cultural resources within and surrounding the Project Site, and due to the controls that are in place in the event of an unanticipated discovery of such materials, impacts on cultural resources as a result of the Project would not be significant.

#### 3.2.1 Native American Interests

In conjunction with this EA and National Historic Preservation Act Section 106 historic and archeological review process, on September 03, 2021, DOE sent a request to the following Federally Recognized Tribes and Council for information on nearby cultural resources and for any comments or concerns they had on the potential for those resources to be affected by construction of the existing facility at the Project Site (see **Appendix B**):

- Apache Tribe of Oklahoma
- Choctaw Nation of Oklahoma
- Coushatta Tribe of Louisiana
- Jena Band of Choctaw Indians
- Mississippi Band of Choctaw Indians
- Muscogee (Creek) Nation
- Seminole Tribe of Florida

Following the submission of the letter, each Tribe was contacted via telephone to ensure receipt of the letter and to respond to any immediate questions or concerns. Written responses to the letter from LPO were received from the Muscogee (Creek) Nation and the Mississippi Band of Choctaw Indians. The Muscogee (Creek) Nation concurred and found no effect in the Project areas as of November 30, 2021. The Mississippi Band of Choctaw Indians expressed that they would like to be a consulting party on the National Historic Preservation Act Section (NHPA) 106 process and requested a copy of the Phase I archaeological survey. On November 10, 2021, LPO attempted to provide the Mississippi Band of Choctaw Indians the appropriate consulting party information and a copy of the Phase I archaeological survey report,; however, due to file transfer limitations the information and report was not received by the Tribe until March 18, 2022. In subsequent conversations with the Tribe, LPO confirmed that the Tribe received the information and had no comments or outstanding questions.

In the event cultural resources (e.g., human remains, lithics, pottery, remnants of older construction) are discovered during Project construction, work would cease in the vicinity of the discovery and the SHPO, Louisiana State Police (in the case of human remains), and appropriate Native American tribes, if applicable, would be notified immediately. Construction activities would resume only upon approval from the SHPO. To offer guidance, Syrah has developed an IDP for the Project, which has been incorporated into its Project Execution Plan on file in the onsite project and construction management team office.

Because of the absence of adverse impacts on Native American interests within and surrounding the Project Site, and due to the controls that are in place in the event of an unanticipated discovery of such materials, impacts on Native American interests resulting from the Project would not be significant.

### 3.3 Water Resources

#### 3.3.1 Wetlands

A preliminary desktop and field assessment of potential wetlands and waterbodies at the Project Site was completed and identified a total of approximately 0.2 acre of isolated wetlands on the Project Site. The 0.2 acre of isolated wetlands is located on an actively managed (routinely mowed) portion of the Project Site. A jurisdictional determination request was submitted to the U.S. Army Corps of Engineers (USACE). On January 3, 2022, the USACE determined that no jurisdictional wetlands or other waters of the U.S. are located at the Project Site, and no permit would be required (see **Appendix B**).

To minimize potential impacts on offsite wetlands resulting from Project construction, a SWPPP has been developed to minimize offsite erosion and sedimentation. Controls that would be implemented to minimize impacts include installing silt fence around the perimeter of the area that would be disturbed by Project construction. A list of relevant Project plans is provided in **Appendix C**.

Because there are no jurisdictional wetlands or other waters of the U.S. within the Project Site and the controls that are part of the SWPPP would minimize impacts on offsite wetlands, impacts on wetlands as a result of the Project would not be significant.

#### 3.3.2 Surface Water and Groundwater

There are no permanent surface water features on the Project Site, and it is located in Zone X on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), which is outside of the 500-year floodplain. The Project does not own or operate any groundwater supply wells. All the water used at the Project Site is provided by the Town of

Vidalia, and all wastewaters are discharged to and treated by the Town of Vidalia. Migration of pollutants from the Project Site to area waterways will be minimized by using best management practices (BMPs) and adhering to a SWPPP during construction and Syrah's existing Louisiana Pollutant Discharge Elimination System (LPDES) Multi-Section General Permit (MSGP) for stormwater associated with industrial activities. In addition, all hazardous liquids associated with the Project will be contained inside the facility, in tanks, or in closed containers stored within secondary containment structures.

Because of the current plans for municipal water use and wastewater treatment through Vidalia's municipal wastewater treatment facility, the absence of floodplains and onsite surface water features, stormwater controls that will be used during construction and operation, and the control of onsite hazardous liquids, impacts on groundwater or surface water resulting from the Project would not be significant.

### 3.4 Air Quality

The Project is in Concordia Parish, Louisiana, which is listed as in attainment with the National Ambient Air Quality Standards (NAAQS). NAAQS are the allowable concentrations and exposure limits for criteria pollutants as established by the U.S. Environmental Protection Agency (EPA). Criteria pollutants include carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), sulfur oxides (SO<sub>x</sub>), and lead (Pb).

In November 2021, Syrah received a Minor Source Air Emissions Permit from the LDEQ covering expected air emissions from the expanded facility as well as ongoing emissions from the existing qualification plant. Criteria pollutants expected to be emitted at the Project Site include particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), NO<sub>x</sub>, CO, and volatile organic compounds (VOCs). Several toxic air pollutants will also be emitted in minor quantities. **Table 1** presents anticipated air emissions from the Project.

**Table 1: Estimated Air Emissions from Syrah's Vidalia AAM**

Pollutant	Estimated Emission Rate (Tons Per Year)
PM <sub>10</sub>	58.25
PM <sub>2.5</sub>	56.87
SO <sub>2</sub>	0.23
NO <sub>x</sub>	31.57
CO	26.54
VOC Total	1.75
Benzene	0.01
Chlorine	0.01
Formaldehyde	0.04
Hydrochloric acid	0.21
Hydrogen fluoride	0.07
n-Hexane	0.59

*CO = carbon monoxide; NO<sub>x</sub> = nitrogen oxides; PM<sub>10</sub> = particulate matter with diameters 10 microns and less; PM<sub>2.5</sub> = particulate matter with diameters 2.5 microns and less; SO<sub>2</sub> = sulfur dioxide; VOC = volatile organic compound*

Controls that would be implemented during Project operation to minimize potential air quality impacts include:

- Dust collectors with removal efficiency of up to approximately 99.99 percent each for PM10 and PM2.5 emissions would be used on spheroidization and classification equipment.
- An environmental caustic scrubber with approximately 99.9 percent efficiency rating would be used to neutralize any acidic species in air carried from the purification circuit.

Fugitive dust emissions during Project construction may result in temporary air quality impacts at the Project Site; however, these impacts would be minor and would occur only during active construction. Per the SWPPP, controls would be implemented to minimize fugitive dust emissions during construction, such as watering as needed and using temporary construction entrances.

Because of the location of the Project Site, existing air quality conditions, the amount of anticipated air emissions, and the controls that would be implemented during Project construction and operation, impacts on air quality resulting from the Project would not be significant.

### 3.5 Greenhouse Gas Emissions and Climate Change

The current science and study of the earth's climate now show with 95 percent certainty that human activity is the dominant cause of observed global warming since the mid-20th century (Intergovernmental Panel on Climate Change 2013<sup>1</sup>). Since the beginning of the industrial era circa 1750, human activities have increased the concentration of GHGs, primarily carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>) in the atmosphere. The rising global temperatures have been accompanied by changes in weather and climate, e.g., changes in rainfall, resulting in more floods, droughts, or intense rain; rising sea levels; Arctic sea ice decline, as well as more frequent and severe heat waves (Intergovernmental Panel on Climate Change 2013). It is now well established that rising atmospheric GHG emission concentrations are significantly affecting the earth's climate (Council on Environmental Quality 2016<sup>2</sup>).

#### 3.5.1 Impacts Associated with Greenhouse Gas Emissions and Climate Change

The GHG emissions associated with the construction of the Project would be minimal compared to the savings resulting from use of the AAM in EV automotive battery applications. The operation of the Project would generate average annual GHG emissions of 32,944 tons per year from electric power delivered from the regional grid and 3,329 tons per year from the combustion of natural gas. As discussed in Section 2.0, Description of the Proposed Action, the AAM would be used as anodes for EV batteries. All of the AAM produced would be sold directly to AAM/Battery Original Equipment Manufacturers for use in light duty EVs.

The magnitude of potential annual reductions in gallons of petroleum will depend on the number of EVs using the manufactured AAM. The Project is projected to produce approximately 11,250 metric tons per year of AAM by 2024, and DOE estimates that the Project's AAM output can support approximately 128,000 EVs per year (U.S. EV sales were over 306,000 in 2020,

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<sup>1</sup> IPCC, 2013: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp.

<sup>2</sup> U.S. Council on Environmental Quality (CEQ). 2016. Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews. August 1. 33 pp.



according to Argonne National Laboratory<sup>3</sup>). This number of EVs yields an annual fuel consumption savings of approximately 57 million gallons of petroleum per year.

The annual avoided CO<sub>2</sub> is calculated from the Project's annual fuel consumption savings (57 million gallons) multiplied by the U.S. Energy Information Administration Fuel Emission factor of 19.54 pounds of CO<sub>2</sub>/gallon for gasoline. Therefore, the use of AAM produced by the Project and used in EVs would support a reduction of approximately 556,890 tons of CO<sub>2</sub> per year. In general, the potential benefits associated with reducing CO<sub>2</sub> emissions would support a reduction in GHG concentrations and reduce the associated climate change impacts (e.g., increases in atmospheric temperature, changes in precipitation, increases in the frequency and intensity of extreme weather events, rising sea levels).

### 3.6 Noise

The Project Site is within the Town of Vidalia's planned industrial park, is surrounded by agricultural land, and lies within a mile of the Concordia Parish Airport and intensive agricultural operations. The Project Site is over 0.5 mile from the nearest residence, 1.5 miles from the nearest multi-residence residential area, and approximately 2.5 miles from active industrial facilities. The primary processes at the expanded facility are enclosed, minimizing exterior noise generation. It remains possible that the Project may introduce increased vehicular and plant-related noise into an environment that currently experiences noise from agricultural equipment, vehicular traffic, airplanes, and industrial noise.

The Project would generate temporary noise during construction. Noise and sound levels would be typical of new construction activities and would be intermittent and temporary. The Project would manage noise using BMPs such as limiting outdoor construction activities to daylight working hours (approximately 7 a.m. to 8 p.m.), using mufflers on construction equipment, and complying with local noise ordinances.

There are eight existing residences within or at 1 mile of the Project Site. These residences could experience minor, short-term adverse impacts from noise generated during construction of the proposed facility.

Facility operations would result in no adverse long-term noise impacts other than those from increased vehicular traffic associated with commuting workers and trucks receiving and shipping materials. Industrial processes performed at the facility would not significantly affect ambient noise levels, as the Project is within an existing industrial park that is adjacent to the Concordia Parish Airport, and all manufacturing processes would be conducted within enclosed buildings. Because of controls that would be implemented during construction and the nature of the area surrounding the Project Site, impacts from noise resulting from the Project would not be significant.

### 3.7 Transportation

Access to the Project Site from the south is from D.A. Biglane Road, which is accessed from Highway 131. From the north, D.A. Biglane Road is accessible via Airport Road from U.S. 84 East. No widening or modification of local access roads is anticipated to be necessary for the Project.

The peak construction workforce is expected to reach approximately 150 people. Syrah is installing additional Project Site entrances at the east and west ends of its property to facilitate

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<sup>3</sup> 2021. Gohlke, David and Zhou, Yan. Assessment of Light-Duty Plug-in Electric Vehicles in the United States, 2010 – 2020, ANL/ESD-21/2, Energy Systems Division, U.S. Department of Energy, Argonne National Laboratory.

the flow of additional vehicle traffic onto the Project Site. The roads bordering the property are not heavily travelled, and minimal disruptions were observed during the previous qualification plant construction period. During periods of peak construction, Syrah also plans to stagger the arrival and departure times of construction personnel to minimize the potential for local traffic disruptions. During ongoing operations, the total number of inbound shipments of raw materials and other process chemicals plus outbound shipments of products, byproducts, and solid waste is expected to be approximately 50 shipments per week. The shipments of flake graphite raw material will arrive by barge to the Port of Vidalia and will be transported less than 1 mile to the Project Site.

Because of the controls that are already in place to reduce traffic congestion during shift changes, the expansion of Project Site access points, and the limited travel distance associated with the flake graphite raw material, impacts on transportation resulting from the Project would not be significant.

### 3.8 Aesthetic and Visual Resources

The Project Site is in rural Concordia Parish within the Town of Vidalia's planned industrial park, which spans approximately 188 acres (including the Project Site) between Highway 131 and the Vidalia Canal. Views to the north, south, east, and west are of agricultural land. Views to the south across Highway 131 include the main line Mississippi River levee, which lies south of the agricultural land south of Highway 131.

The existing pilot plant is, and the Project will be, visible due to the agricultural nature of the surrounding landscape. Some views from residences will be obscured by the presence of large live oak trees and other trees associated with the residences. The nearest residence is approximately 0.5 mile to the west.

Construction of the Project would result in permanent visual changes to the Project Site. However, the new facility would have an appearance consistent with the existing facility, which is already the dominant visual element in the immediate landscape. Operations at the new facility would result in minor increases in nighttime light, which should not adversely affect residents.

Because the Project Site is in a zoned industrial park, and that the design of the Project is similar to that of the existing manufacturing facility, impacts on aesthetic and visual resources resulting from the Project would not be significant.

### 3.9 Threatened and Endangered Species

The Project Site contains the existing manufacturing facility and agricultural land and is surrounded by agricultural land or roadways on all four sides (see Figures 1, 2, and 3). The nearest natural habitat exists across the Mississippi River levee approximately 1 mile to the south.

A search for critical habitat and protected species was conducted using the U.S. Fish and Wildlife Service (USFWS) Environmental Conservation Online System (ECOS). No critical habitats were identified, and only two protected species were listed for Concordia Parish in the Project area: the threatened northern long-eared bat (*Myotis septentrionalis*) and the endangered fat pocketbook mussel (*Potamilus capax*). One bird of conservation concern, the red-headed woodpecker (*Melanerpes erythrocephalus*), was noted as potentially present during July. One candidate species, the Monarch butterfly (*Danaus plexippus*), was identified, also with no critical habitat. The ECOS Information for Planning and Consultation (IPaC) system review concluded that the Project would have no effect on the northern long-eared bat or the fat

pocketbook mussel (see Appendix B). Pursuant to its responsibilities under Section 7 of the Endangered Species Act, LPO concurs that the Project would have no effect on the listed threatened or endangered species or on designated critical habitat.

Construction at the 25-acre Project Site would have no effect on the two protected species or the red-headed woodpecker because the Project Site does not contain potentially suitable habitat. Although the area could be used as foraging habitat for the bat, the Project would not change the overall nature and quality of foraging habitat in the area.

Because of the lack of natural habitat on or adjacent to the Project Site and the surrounding active agricultural activities (planting, harvesting, processing), impacts on biological resources—including threatened and endangered species—resulting from the Project would not be significant.

### 3.10 Socioeconomics and Environmental Justice

#### 3.10.1 Socioeconomics

The Project is in rural Concordia Parish, Louisiana within the Town of Vidalia's planned industrial park. The Project Site is surrounded by agricultural lands, bounded to the south by Highway 131 and the Concordia Parish Airport to the north. The nearest hospital, Promise Hospital of Miss Lou is approximately 3.7 miles east of the Project Site, and the nearest school—Vidalia Junior High—is approximately 3.4 miles east of the Project Site.

Beneficial socioeconomic impacts would occur from increased employment opportunities, tax revenue generation, and direct and indirect spending in the local economy. Development of the Project would generate approximately 98 full-time permanent jobs, with a peak construction workforce of approximately 150 individuals.

Due to the low peak-construction and operational workforce required for the Project as well as the intent to use the capable and skilled local workforce, no substantial immigration of people to the local area would result. As such, adverse impacts on local housing, road networks, schools, hospitals, emergency services, or utilities are not expected. Impacts on socioeconomic resources resulting from the Project would not be significant.

#### 3.10.2 Environmental Justice

LPO's review of EJ issues focuses on Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," the National-Scale Air Toxics Assessment (NATA) cancer risk and respiratory hazard index as defined in EPA's EJ screening tool, and on any site-specific population centers (e.g., schools, day-care centers) near the Project Site.

Executive Order 12898 directs federal agencies to address environmental and human health conditions in minority and low-income communities. The evaluation of EJ is dependent on determining if high and adverse impacts from the Project would disproportionately affect minority or low-income populations in the affected community.

In accordance with EPA's EJ guidelines, minority populations should be identified when either: 1) the minority population of the affected area exceeds 50 percent; or 2) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

The ethnic and racial composition of Concordia Parish and the State of Louisiana is presented in **Table 2**. Minority populations are less than 50 percent of the population in Concordia Parish

and are not meaningfully different than minority populations in the State of Louisiana. At the Census blockgroup level where the Project is located, the people of color population is 27 percent (see Table 3).

The percentage of persons in poverty is 10 percent higher in Concordia Parish (28.6 percent) than in the rest of the state (17.8 percent; see **Table 2**). In the EPA's EJ screening tool (**Table 3**), however, the low-income population is 34 percent, which is lower than the state average of 39 percent (43<sup>rd</sup> percentile) and 1 point higher than the U.S. average of 33 percent (58<sup>th</sup> percentile).

**Table 2: Population, Ethnicity, and Poverty**

	Concordia Parish	Louisiana
Total population	18,687	4,624,047
Race/Ethnicity		
White	58.3%	62.8%
Black or African American	39.8%	32.8%
American Indian and Alaska Native	0.5%	0.8%
Asian	0.4%	1.8%
Native Hawaiian and other Pacific Islander	<0.1%	0.1%
Hispanic or Latino	1.7%	5.3%
Poverty	28.6%	17.8%

*Note: All population and ethnicity data were gathered from the U.S. Census Bureau web page. Accessed March 7, 2022.*

**Table 3: EPA's EJ Screen Report**

	Value	State Average	Percentile in State	U.S. Average	Percentile in U.S.
NATA* cancer risk (lifetime risk per million)	35	51	11	32	60-70th
NATA* respiratory hazard index	0.47	0.61	2	0.44	60-70th
People of color population	27%	41%	42	39%	45
Low-income population	34%	39%	43	33%	58

*Notes: Selected Variables – Blockgroup: 220290003001, Louisiana, EPA Region 6. Approximate Population: 1,481.*

*\* More information on the NATA can be found at: <https://www.epa.gov/national-air-toxics-assessment>*

The NATA cancer risk and respiratory hazard indices are a way to see how local residents compare to everyone else in the state and the entire U.S. For the NATA respiratory hazard index and the NATA cancer risk index (lifetime risk per million), the Project is in an area that is in the 60 to 70<sup>th</sup> percentile in the U.S. Although these NATA percentiles are higher in comparison to the rest of the U.S., the Project emissions were reviewed by the LDEQ for

Syrah's Minor Source Air Emissions Permit, as discussed in Section 3.4, Air Quality. Permitted emission levels of criteria pollutants and hazardous air pollutants are considered to be protective of human health and the environment. Also, based on the permit, controls will be implemented during operation to minimize emissions and potential air quality impacts.

Based on the jobs created during construction and the 98 full-time permanent jobs created, the Project will benefit the regional economy. There are no anticipated impacts that could give rise to disproportionate impacts on minority or low-income populations in the affected area; therefore, EJ impacts would not be significant.

### 3.11 Health and Safety

The chemicals used in the commercial scale facility will be the same as those used in the existing qualification facility. Currently, aqueous solutions of sodium hydroxide, hydrochloric acid, and hydrofluoric acid are delivered to the qualification facility in intermediate bulk containers. For the commercial scale facility, these solutions will be delivered via tank trucks and stored in dedicated storage tanks. These tanks will be surrounded by secondary containment dikes sized in accordance with current chemical industry design guidelines. The unloading areas for the tank trucks themselves will also feature secondary containment designed to safely hold the entire contents of a tank truck in the unlikely event of a leak or spill.

The other notable process chemical, hydrated lime, is a solid material and is currently delivered to the Project Site in bags on pallets. The lime will be delivered in bulk to the new facility and stored in a dedicated silo.

The existing facility's Spill Prevention Control and Countermeasure Plan (SPCC), which covers chemical management, routes of possible spills, spill prevention, and spill handling measures, will be expanded to address the larger scale operations at the new facility.

The safe operating practices for the existing qualification plant, which reflect Syrah's global operating standards and prevailing best practices in the chemical industry, will also be adapted to the larger scale of the commercial scale facility. Applicable federal, state, and local regulations and standards for construction and operation of the facility will be implemented to ensure the safety of workers and the public. This would include compliance with federal Occupational Safety and Health Administration regulations and state rules under the Occupational Safety and Health Act.

The local fire department has received training in the unique potential hazards associated with the existing qualification facility, and this training will be updated to educate them in the new facility layout and firewater systems as well as to refresh awareness of potential hazards associated with the AAM manufacturing process.

Because of the measures to address health and safety, including BMPs; compliance with federal, state, and local regulations and standards; plans for preventing chemical spills and potential mishandling of hazardous materials; and the facility's experience with handling and use of the same hazardous materials at the existing facility, impacts on the health and safety of workers and the public from Project construction and operation would not be significant.

### 3.12 Waste Management

Syrah's commercial scale facility will generate two principal waste streams: process wastewater discharge and non-hazardous solid waste generated during the neutralization of acid species contained in the spent leaching solution discharge from the purification step of the manufacturing process.

The process wastewater stream will have a composition that is substantially similar to that of the existing qualification plant, which is a dilute solution of sodium chloride and calcium chloride in water. The Town of Vidalia currently accepts the discharge from Syrah's qualification plant into its municipal wastewater treatment facility and has committed to continue processing the wastewater effluent from Syrah's Vidalia facility for the expanded capacity of the commercial scale plant. Approximately 40,000 gallons per day of wastewater will be discharged to the Town of Vidalia's treatment facilities, which has the capacity to treat an additional 120,000 gallons a day of wastewater.


The solid waste generated during the neutralization step at the back end of Syrah's purification circuit will also be of a composition similar to that of the qualification plant, consisting primarily of calcium fluoride. This solid waste is non-hazardous, and Syrah will continue its current practice of contracting with a reputable waste handling company, such as Veolia, to collect the waste material and transport it to a landfill permitted for non-hazardous waste. Approximately 6.4 metric tonnes per day (dry basis) of this non-hazardous waste will be generated by the graphite purification process.

Because of planned waste management practices that are aligned with those of the existing Syrah facility, including the handling of process wastewater in the Town's municipal wastewater treatment facility and the offsite disposal of non-hazardous waste, impacts from waste management activities would not be significant.

## 4.0 FINDING

Based on this EA, DOE has determined that providing a federal loan to Syrah to expand AAM manufacturing operations at its facility will not have a significant effect on the human environment. The preparation of an Environmental Impact Statement is therefore not required, and DOE is issuing this Finding of No Significant Impact.

**Todd E.  
Stribley**

 Digitally signed by Todd E. Stribley  
Date: 2022.04.22 09:45:14 -06'00'

April 22, 2022

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Todd Stribley  
LPO NEPA Compliance Officer  
Director, Environmental Compliance  
DOE Loan Programs Office

Date

## 5.0 LIST OF AGENCIES CONTACTED

U.S. Fish and Wildlife Service

U.S. Army Corps of Engineers

Louisiana Department of Environmental Quality

Louisiana Department of Culture, Recreation, and Tourism

Office of Historic Preservation

Office of Archaeology

## 6.0 LIST OF PREPARERS

Name	Project Role	Company	Qualifications	Years' Experience
Todd Stribley	Loan Programs Office	U.S. Department of Energy	BS, Biology; MS, Environmental Science and Public Policy	29
Don Brown	Loan Programs Office	Contractor to U.S. Department of Energy	BS, Geography; MS, Urban and Regional Planning	25
Paul Jahn	Commercial Manager - Battery Anode Material	Syrah	BS, Chemical Engineering MS, Management Science	40
Kerry Oriol	Environmental Scientist/ NEPA Expert	Providence	BS, Fish and Wildlife Biology	32
Jessica Dozier	Environmental Scientist	Providence	MS, Energy Policy and Climate Change BS, Mechanical Engineering	15
Taylor Simoneaux	Wetlands Subject Matter Expert (SME)/ Environmental Scientist	Providence	BS, Natural Resource Ecology and Management MS, Forest Resources	7
Regina Staten	Senior Wetlands SME	Providence	BS, Zoology/Biological Sciences	15
Mindi Faubion	Senior Air Quality SME	Providence	BS, Biological Engineering MS, Biological Engineering Professional Engineer (PE)	14
Savannah R. Morales	GIS/Environmental Scientist	Providence	BS, Natural Resource Ecology and Management MS, Renewable Natural Resources	7
Tanner Jones	GIS Specialist	Providence	BS, Natural Resource Ecology and Management	7
Paul D. Jackson	Principal Cultural Heritage Investigator	TerraXplorations, Inc.	MA, Anthropology	29
Natalie Ledesma	Cultural Heritage/GIS Specialist	TerraXplorations, Inc.	BA, Geography	10
Laura Weingartner	Cultural Heritage/Report Writer	TerraXplorations, Inc.	MS, Soil Science	15



**APPENDIX A**

**PERMITS AND APPROVALS**

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REQUIRED ACTION ITEM	PERMITTING AGENCY	STATUS	ISSUE/APPROVAL DATE
<b>PROPERTY CERTIFICATION REQUIREMENTS</b>			
Phase I Environmental Site Assessment (ESA)	Not Applicable	Completed	5/31/2018
Information for Planning and Consultation (IPaC) system - Endangered Species Act, Section 7 Consultation	U.S. Fish and Wildlife Service (USFWS)	Completed, see Appendix B	9/13/2021
National Historic Preservation Act, Section 106 Consultation	State Historic Preservation Office (SHPO)	Completed, see Appendix B	1/24/2022
<b>PERMITS REQUIRED PRIOR TO CONSTRUCTION</b>			
Wetlands Delineation and Jurisdictional Determination	U.S. Army Corps of Engineers (USACE)	Completed, see Appendix B	1/3/2022
Water Quality Certification (WQC)	Louisiana Department of Environmental Quality (LDEQ)	Not Applicable	Not Applicable
USACE Section 10/404 Permit	USACE Operations Division, Coastal Protection and Restoration Authority, Local Levee Board	Not Applicable	Not Applicable
USACE Section 408 Review	USACE	Not Applicable	Not Applicable
<b>WATER QUALITY PERMITS</b>			
Construction Storm Water Notice of Intent	LDEQ	Approved	Coverage date - 12/29/2021
Construction Storm Water Pollution Prevention Plan (SWPPP)	LDEQ	Completed, available on site	Active document
On-Site Sanitary Waste Water Construction and Operating Permit	LDEQ	Sanitary wastewater to continue to be handled by the City of Vidalia	Not Applicable

<b>AIR QUALITY PERMITS</b>			
<b>Air Permit Minor Source</b>	LDEQ	Approved	11/17/2021
<b>WASTE PERMITS</b>			
<b>Solid Waste Permit</b>	LDEQ	3rd Party collection and disposal off-site	Not Applicable
<b>PERMITS REQUIRED PRIOR TO OPERATIONS</b>			
<b>On-Site Water/Operating Permits (LPDES)</b>	LDEQ	Wastewater is handled by the City of Vidalia	Not Applicable
<b>Multisector Stormwater Discharge Permit</b>	LDEQ	Amending existing SWPPP	MSGP Issued 12/12/2018, Active

## **APPENDIX B**

### **CONSULTATION WITH AGENCIES AND AMERICAN INDIANS, INDIAN TRIBES, AND ALASKA NATIVES**

## Agency Consultation

Louisiana Department of Environmental Quality, State of Louisiana

Louisiana Office of Cultural Development, State Historic Preservation Office

U.S. Army Corps of Engineers, Vicksburg District

U.S. Department of the Interior, Fish and Wildlife Service, Louisiana Ecological Services Field Office



## Department of Energy

Washington, DC 20585

September 3, 2021

Dr. Chuck Carr Brown, Secretary  
Louisiana Department of Environmental Quality  
State of Louisiana  
P.O. Box 4301  
Baton Rouge, LA 70821-4301

**SUBJECT:** Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan to Expand Syrah Technologies LLC's (Syrah's) Active Anode Material Processing Facility in Vidalia, Concordia Parish, Louisiana

Dear Secretary Brown:

Under Section 136 of the Energy Independence and Security Act of 2007, which established the Advanced Technology Vehicles Manufacturing Loan (ATVM) program, the U.S. Department of Energy (DOE) is evaluating whether to provide a Federal loan to Syrah to support the expansion of their active anode material processing facility in Vidalia, Louisiana. The decision to prepare an EA was made in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021).

The purpose and need for DOE's action is to comply with our mandate under Section 136 of the Energy Independence and Security Act to select projects for financial assistance that are consistent with the goals of the Act. Pursuant to the Act, the ATVM program was established to provide loans to automobile and automobile parts manufacturers for the cost of re-equipping, expanding, or establishing manufacturing facilities in the United States to produce advanced technology vehicles or qualified components. DOE has determined that the expansion of the active anode material processing facility as proposed by Syrah is consistent with the goals of the Act, and is using the NEPA process to assist in determining whether to issue a loan to Syrah to support construction and startup for the proposed expansion project.

Syrah currently operates a natural graphite based active anode material (AAM) processing facility on a 25-acre plot of land at the northwest corner of D.A. Biglane Road and Highway 131 in Vidalia, Louisiana (see Attachment 1, Site Location). The facility

processes natural graphite flake into carbonized leach-purified anode material, which is used to manufacture lithium-ion batteries for electric vehicles, energy storage, and other applications. Syrah's proposed expansion of their facility includes new process and material handling structures, a new administration building, expanded parking facilities, and potential wastewater discharge infrastructure (see Attachment 2, Site Layout). Based on preliminary estimates, approximately 150 jobs would be created during construction, and approximately 55 jobs for facility operation. Once completed, Syrah expects to produce a total of 10,000 metric tons of AAM per year.

The DOE NEPA regulations provide for the notification of host states of NEPA determinations and for the opportunity for host states to review EAs prior to DOE approval. This process is intended to improve coordination and to facilitate early and open communication. DOE will provide the draft EA to you for your review and comment.

If you or your staff would like to receive further information concerning this project or DOE's NEPA process for ATVM loans, please contact me in the DOE Loan Programs Office at (303) 275-4549, or email at [Todd.Stribley@hq.doe.gov](mailto:Todd.Stribley@hq.doe.gov).

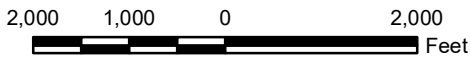
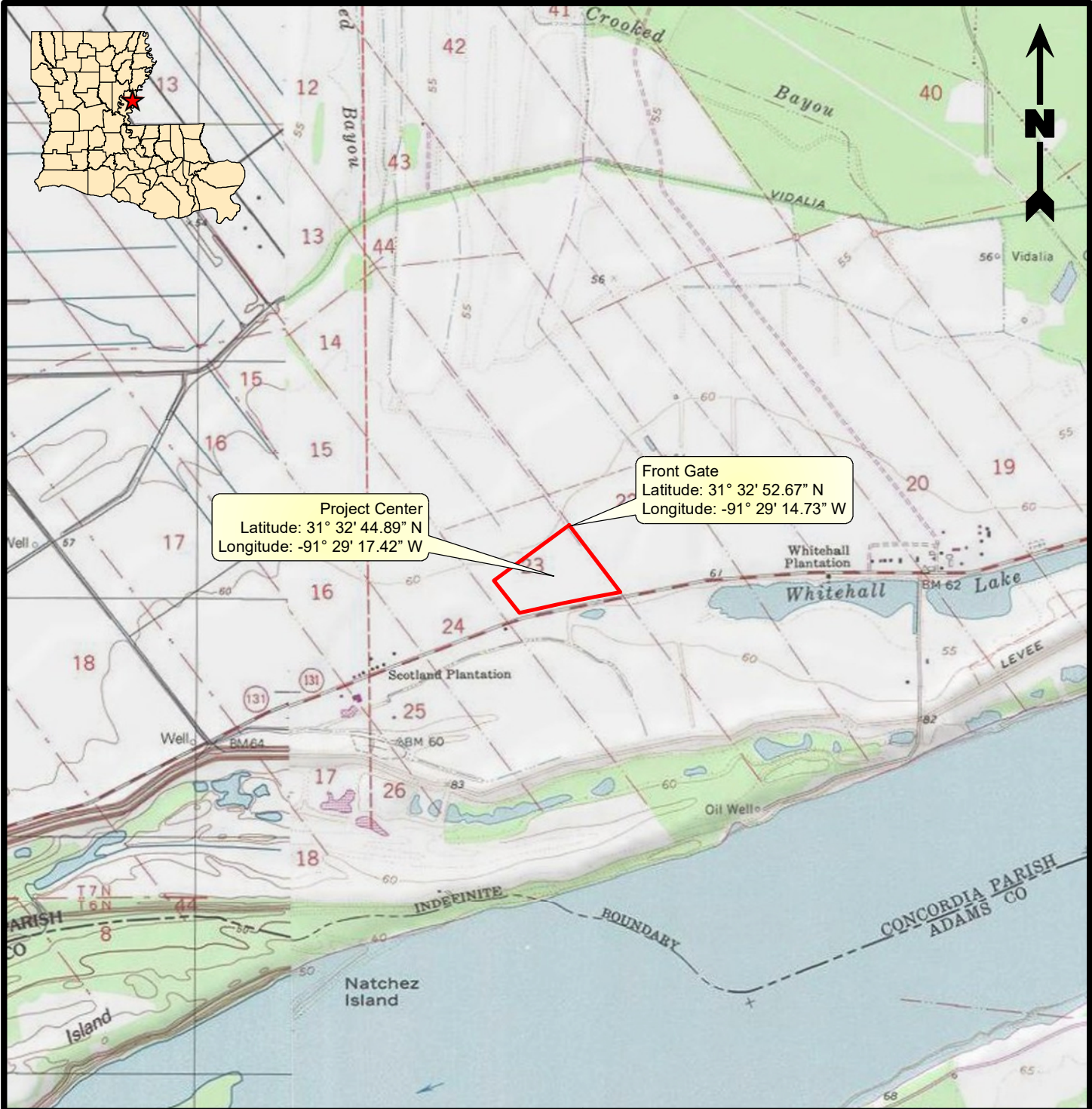
Sincerely,



Todd Stribley  
NEPA Document Manager  
Loan Programs Office

Attachments:

Site Location Map  
Site Layout Map



**Legend**

 Syrah Property Boundary

**Reference**

Base map comprised of United States Geological Survey (USGS) 7.5-minute topographic maps, "Ferriday South, LA", and "Natchez, LA".

**Site Location Map**

Environmental Assessment  
Concordia Parish, Louisiana

**Syrah Technologies LLC**  
Syrah Active Anode Material Facility

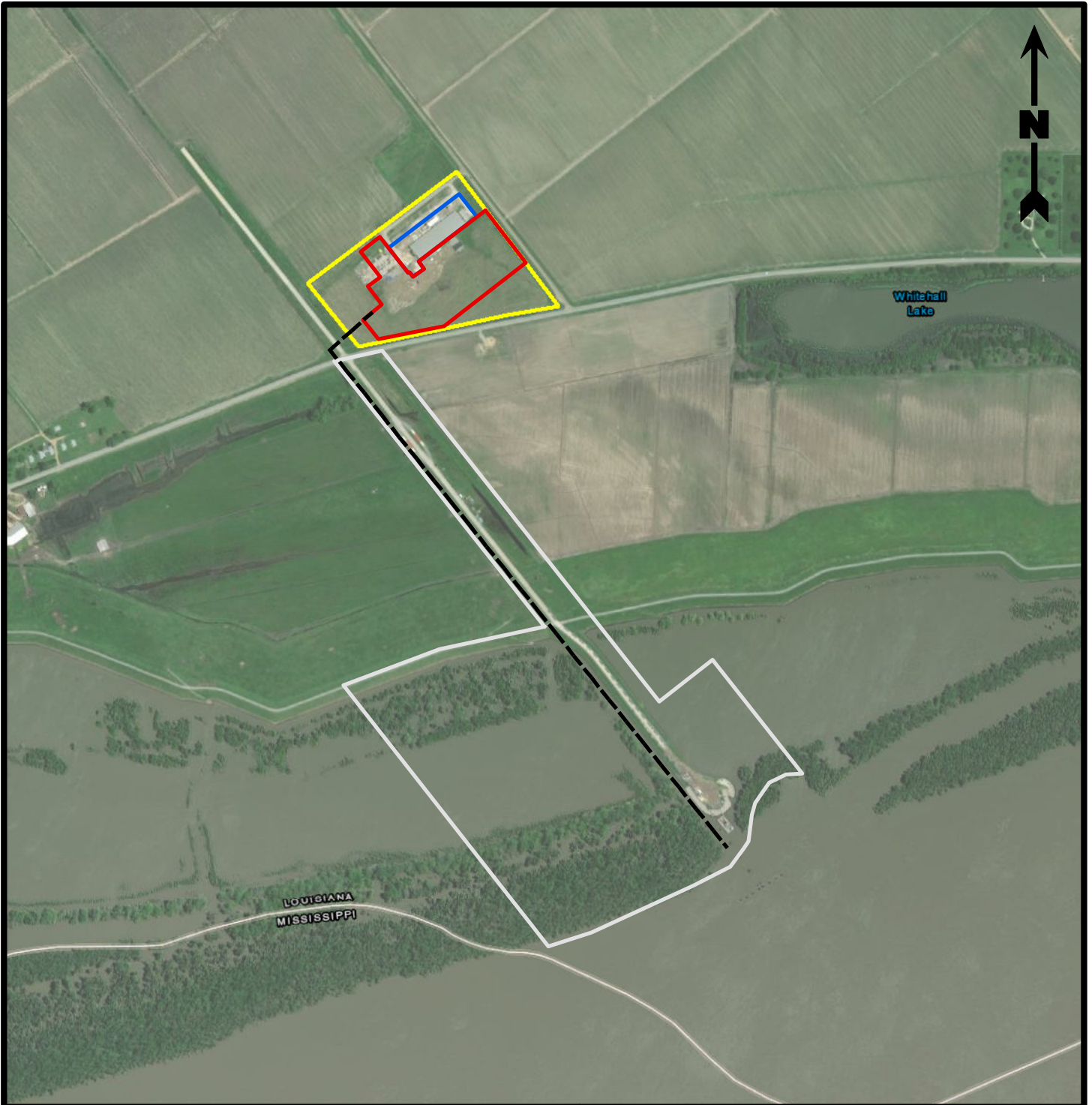


**PROVIDENCE**

Drawn By	TDJ	8/27/2021
Checked By	TDJ	8/27/2021
Approved By	CJD	8/27/2021

Project Number 1184-001	<b>1</b> Figure
Drawing Number 1184-001-A012	





**Legend**

- Syrah Property Boundary
- Port of Vidalia Property Boundary
- New Facilities
- Existing Facilities
- Route of Discharge Pipeline Under Consideration

**Reference**

Base map comprised of ESRI's World Imagery exported 08/27/21  
 Map comprised of client provided image.

**Project Site Map**

Environmental Assessment  
 Concordia Parish, Louisiana

**Syrah Technologies LLC**

Syrah Active Anode Material Facility



**PROVIDENCE**

Drawn By	TDJ	8/27/2021
Checked By	TDJ	8/27/2021
Approved By	CJD	8/27/2021

Project Number 1184-001	<b>2</b> Figure
Drawing Number 1184-001-A016	



## Department of Energy

Washington, DC 20585

November 3, 2021

Kristin Sanders, State Historic Preservation Officer  
Louisiana Office of Cultural Development  
P.O. Box 44247  
Baton Rouge, LA 70804-4241

**SUBJECT:** U.S. Department of Energy, Vidalia Active Anode Material Site in Vidalia, Concordia Parish, Louisiana; Section 106 Consultation

Dear Ms. Sanders,

Pursuant to its authority under Section 136 of the Energy Independence and Security Act of 2007, which established the Advanced Technology Vehicles Manufacturing Loan (ATVM) program, the U.S. Department of Energy (DOE) is evaluating whether to provide a Federal loan to Syrah Technologies, LLC (Syrah) to support the expansion of their active anode material (AAM) processing facility in Vidalia, Louisiana (DOE's proposed action and undertaking). The purpose of this letter is to consult with the Louisiana State Historic Preservation Office under Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, present the DOE undertaking and the associated area of potential effect (APE), submission of the Phase 1 Cultural Resources Survey for the Syrah Vidalia Anode Material Project in Concordia Parish, Louisiana for your review, and present DOE's finding of no historic properties affected pursuant to its Section 106 responsibilities.

### **DOE Undertaking and APE**

Syrah currently operates a natural graphite based AAM processing facility on a 25-acre plot of land at the northwest corner of D.A. Biglane Road and Highway 131 in Vidalia, Louisiana (see Attachment 1, Site Location). The facility processes natural graphite flake into carbonized leach-purified anode material, which is used to manufacture lithium-ion batteries for electric vehicles, energy storage, and other applications. Syrah's proposed expansion of their facility includes new process and material handling structures, a new administration building, expanded parking facilities, and potential wastewater discharge infrastructure.

The DOE undertaking (providing a loan to Syrah for the proposed AAM processing facility expansion in Vidalia, Louisiana) would involve scaling up the current production of 100 tons per annum (tpa) of AAM to 10,000 tpa leveraging the same size equipment and procedures currently available. The investment includes expanding the existing AAM processing facility and the equipment necessary to produce a purified spherical graphite product that is mixed with pitch and then carbonized into AAM that is suitable for sale in the lithium-ion battery market for electric vehicles. This project proposes to scale up the operating facility currently installed at Vidalia, Concordia Parish, Louisiana.

The archaeological Area of Potential Effect (APE) includes the area subject ground disturbing activities, constituting the entire 15.8-acre Project footprint (see Figures 1.1 and 1.2 in Attachment 2, A Phase 1 Cultural Resources Survey for the Syrah Vidalia Anode Material Project in Concordia Parish, Louisiana). The architectural APE included the 15.8-acre Project footprint, as well as a 0.30-mile buffer surrounding that area to address potential indirect effects.

### **DOE Finding**

In accordance with Section 106 to identify historic properties and assess adverse effects, DOE has reviewed the *Phase I Cultural Resources Survey for the Syrah Vidalia Anode Material Project in Concordia Parish, Louisiana*, dated October 2021 (attached with this letter). The report identified one historic isolated find (four glass fragments) and found that the isolated find does not meet the criteria for the National Register of Historic Places due to its destroyed condition and lack of historical significance. No other archaeological sites within the APE were identified. The report evaluated the view shed for above-ground resources constructed, as well as possible previously recorded above-ground resources (including NRHP listed resources) over 50 years old within the architectural APE, and no above-ground resource findings were documented.

The report concluded that no historic architectural structures, historic areas, or archaeological sites are present within the project area, and DOE concurs that no historic properties (archaeological sites, architectural structures, or historic areas) are affected.

DOE is requesting the SHPO's concurrence on the APE and its no historic properties affected determination for both historic architectural resources and archaeological resources.

We look forward to SHPO's concurrence on the APE and on DOE's no historic properties affected determination. If you have any questions or would like to discuss this project further, please contact me in the DOE Loan Programs Office at (303) 275-4549, or email at [Todd.Stribley@hq.doe.gov](mailto:Todd.Stribley@hq.doe.gov).

Sincerely,



Todd Stribley  
NEPA Document Manager  
Loan Programs Office

Attachments:

Attachment 1: Vidalia, LA Site Location Map

Attachment 2: A Phase I Cultural Resources Survey for the Syrah Vidalia Anode Material Project in Concordia Parish, Louisiana



## Department of Energy

Washington, DC 20585

November 3, 2021

Kristin Sanders, State Historic Preservation Officer  
Louisiana Office of Cultural Development  
P.O. Box 44247  
Baton Rouge, LA 70804-4241

No known historic properties will be affected by this undertaking. Therefore, our office has no objection to the implementation of this project. This effect determination could change should new information come to our attention.

Kristin P. Sanders  
State Historic Preservation Officer  
Date

**SUBJECT:** U.S. Department of Energy, Vidalia Active Anode Material Site in Vidalia, Concordia Parish, Louisiana; Section 106 Consultation

Dear Ms. Sanders,

Pursuant to its authority under Section 136 of the Energy Independence and Security Act of 2007, which established the Advanced Technology Vehicles Manufacturing Loan (ATVM) program, the U.S. Department of Energy (DOE) is evaluating whether to provide a Federal loan to Syrah Technologies, LLC (Syrah) to support the expansion of their active anode material (AAM) processing facility in Vidalia, Louisiana (DOE's proposed action and undertaking). The purpose of this letter is to consult with the Louisiana State Historic Preservation Office under Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, present the DOE undertaking and the associated area of potential effect (APE), submission of the Phase 1 Cultural Resources Survey for the Syrah Vidalia Anode Material Project in Concordia Parish, Louisiana for your review, and present DOE's finding of no historic properties affected pursuant to its Section 106 responsibilities.

### **DOE Undertaking and APE**

Syrah currently operates a natural graphite based AAM processing facility on a 25-acre plot of land at the northwest corner of D.A. Biglane Road and Highway 131 in Vidalia, Louisiana (see Attachment 1, Site Location). The facility processes natural graphite flake into carbonized leach-purified anode material, which is used to manufacture lithium-ion batteries for electric vehicles, energy storage, and other applications. Syrah's proposed expansion of their facility includes new process and material handling structures, a new administration building, expanded parking facilities, and potential wastewater discharge infrastructure.

RECEIVED

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ARCHAEOLOGY



**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORPS OF ENGINEERS, VICKSBURG DISTRICT  
4155 CLAY STREET  
VICKSBURG, MISSISSIPPI 39183-3435

January 3, 2022

Regulatory Division

SUBJECT: Department of the Army Regulatory Requirements – Syrah Technologies, LLC, Vidalia Anode Material Site, Concordia Parish, Louisiana: MVK-2021-922

Mr. Taylor Simoneaux  
Providence Engineering  
and Environmental Group, LLC  
1201 Main Street  
Baton Rouge, Louisiana 70802

Dear Mr. Simoneaux:

I refer to your letter requesting Department of the Army permit requirements for the proposed Syrah Technologies Vidalia Anode Material Site located in section 10, T7N-R10E, Concordia Parish, Louisiana. The location of the proposed work is depicted on the enclosed map (enclosure 1).

Based upon the information provided, we have determined that a Department of the Army Section 10/404 permit will not be required for the proposed work in phase one, since there are no jurisdictional wetlands or other waters of the United States located within the project areas. For your information, I have enclosed a copy of the basis of our determination (enclosure 2) and appeals form (enclosure 3). It is our understanding that the proposed work is phase one (1) of two (2) phases. Please be advised that any work (land clearing, trenching, filling, roads, leveeing, etc.) conducted outside of the indicated boundary (phase 1) will require a reevaluation of permit requirements by our office.

This approved jurisdictional determination is valid for a period not to exceed five years from the date of this letter unless superseded by law or regulation. If the proposed work is not completed by this time, please contact this office for a reevaluation of permit requirements and refer to Identification No. MVK-2021-922, when submitting the information.

This determination of Department of the Army regulatory requirements does not convey any property rights, either in real estate or material, or any exclusive privileges, and does not authorize any injury to property or invasion of rights, local laws or regulations, or obviate the requirement to obtain State or local assent required by law for the activity discussed herein.

The decision regarding this action is based on information found in the administrative record, which documents the District's decision-making process, the basis for the decision, and the final decision.

If we may be of any further assistance in this matter, please contact Mr. Bryton Hixson, of this office, telephone (601) 631-5591 or e-mail address: [Bryton.K.Hixson@usace.army.mil](mailto:Bryton.K.Hixson@usace.army.mil).

Sincerely,

A handwritten signature in cursive script that reads "Gerald G. Bourne".

Gerald G. Bourne  
Acting Chief, Enforcement and Compliance Branch  
Regulatory Division

Enclosures



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Louisiana Ecological Services Field Office  
200 Dulles Drive  
Lafayette, LA 70506  
Phone: (337) 291-3100 Fax: (337) 291-3139

IPaC Record Locator: 359-105586044

September 13, 2021

Subject: Consistency letter for the project named 'VAM Vidalia' for specified threatened and endangered species that may occur in your proposed project location pursuant to the Louisiana Endangered Species Act project review and guidance for other federal trust resources determination key (Louisiana DKey).

Dear Kerry Oriol:

The U.S. Fish and Wildlife Service (Service) received on September 13, 2021 your effects determination(s) for the 'VAM Vidalia' (the Action) using the Louisiana DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers, and the assistance in the Service's Louisiana DKey, you made the following effect determination(s) for the proposed Action:

<b>Species</b>	<b>Determination</b>
Endangered Fat pocketbook ( <i>Potamilus capax</i> )	No Effect
Threatened Northern Long-eared Bat ( <i>Myotis septentrionalis</i> )	No Effect

Your agency has met consultation requirements for these species by informing the Service of the "no effect" determinations. No further consultation for this project is required for these species. This consistency letter confirms you may rely on effect determinations you reached by considering the Louisiana DKey to satisfy agency consultation requirements under Section 7(a) (2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.; ESA).

The Service recommends that your agency contact the Service or re-evaluate the project in IPaC if: 1) the scope or location of the proposed project is changed significantly, 2) new information reveals that the action may affect listed species or designated critical habitat; 3) the action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation should take place before project changes are final or resources committed.



The proposed project is within the range of the Louisiana black bear. The Louisiana black bear (*Ursus americanus luteolus*) was listed as a threatened subspecies in 1992. Due to recovery, it was officially removed from the List of Endangered and Threatened Species on March 11, 2016 (effective April 11, 2016). Although the Louisiana black bear is no longer protected under the ESA it remains protected under Louisiana state law. Please go to the following site for more information <https://www.fws.gov/southeast/pdf/fact-sheet/louisiana-black-bear-post-delisting-consultation.pdf>.

**Please Note:** If the Federal Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) may be required. Please contact Ulgonda Kirkpatrick (phone: 321/972-9089, e-mail: [ulgonda\\_kirkpatrick@fws.gov](mailto:ulgonda_kirkpatrick@fws.gov)) with any questions regarding potential impacts to bald or golden eagles.

---

**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

VAM Vidalia

**2. Description**

The following description was provided for the project 'VAM Vidalia':

Vidalia AM project is a new process plant for graphite anode material on approximately 25 acres, with additional acreage available for expansion. The site presently supports a plant, warehouse and office building.

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@31.551929,-91.4964903725877,14z>



## Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?  
*Yes*
  2. Is the action authorized, funded, or being carried out by the:  
*c. Other*
  3. Please identify your agency or organization type:  
*a. Federal agency*
  4. Have you determined that the project will have "no effect" on federally listed species? (If unsure select "No")  
*No*
  5. [Hidden Semantic] Does the project intersect the fat pocketbook pearly mussel AOI?  
**Automatically answered**  
*Yes*
  6. Will the project involve activities such as channel maintenance, dredging, and flood control in stable sand, silt, and clay substrate with flowing water in dike fields and secondary channels of the Mississippi River?  
*No*
  7. [Semantic] Does the project intersect the Northern Long-eared bat AOI?  
**Automatically answered**  
*Yes*
  8. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")  
*Yes*
  9. (Semantic) Does the project intersect the Louisiana black bear Range?  
**Automatically answered**  
*Yes*
-

## Project Questionnaire

1. **If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.**
    1. Estimated total acres of forest conversion:  
0
    2. If known, estimated acres of forest conversion from April 1 to October 31  
0
    3. If known, estimated acres of forest conversion from June 1 to July 31  
0
  4. **If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.**
    4. Estimated total acres of timber harvest  
0
    5. If known, estimated acres of timber harvest from April 1 to October 31  
0
    6. If known, estimated acres of timber harvest from June 1 to July 31  
0
  7. **If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.**
    7. Estimated total acres of prescribed fire  
0
    8. If known, estimated acres of prescribed fire from April 1 to October 31  
0
    9. If known, estimated acres of prescribed fire from June 1 to July 31  
0
  10. **If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.**
    10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?  
0
-

## American Indian, Indian Tribes, and Alaska Natives Consultations

<b>Entity</b>	<b>Contact(s)</b>
Apache Tribe of Oklahoma	Chairman Durell Cooper
Choctaw Nation of Oklahoma	Chief Gary Batton
Choctaw Nation of Oklahoma	Ian Thompson, Tribal Historic Preservation Officer
Coushatta Tribe of Louisiana	Chairman Jonathan Cernek
Coushatta Tribe of Louisiana	Linda Langley, Tribal Historic Preservation Officer
Jena Band of Choctaw Indians	Principal Chief B. Cheryl Smith
Jena Band of Choctaw Indians	Alina Shively, Tribal Historic Preservation Officer
Mississippi Band of Choctaw Indians	Chief Cyrus Ben
Mississippi Band of Choctaw Indians	Kenneth H. Carleton, Tribal Historic Preservation Officer
Muscogee (Creek) Nation	Principal Chief David Hill
Muscogee (Creek) Nation	Corain Lowe-Zepeda, Tribal Historic Preservation Officer
Seminole Tribe of Florida	Chairman Marcus Osceola, Jr.
Seminole Tribe of Florida	Paul N. Backhouse, PhD, Tribal Historic Preservation Officer

**Note:**

An individual letter was submitted to each Indian Tribe. To reduce the file size and the overall number of pages, the letter to the Jenna Band of Choctaw Indians is included as an example, and all responses are included.



## Department of Energy

Washington, DC 20585

September 3, 2021

Principal Chief B. Cheryl Smith  
Jena Band of Choctaw Indians  
PO Box 14  
Jena, LA 71342-0014

**SUBJECT:** Proposed Federal Loan to Expand Syrah Technologies LLC's (Syrah's) Active Anode Material Processing Facility in Vidalia, Concordia Parish, Louisiana

Dear Principal Chief Smith:

The U.S. Department of Energy (DOE) is preparing an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) to assist in determining whether to issue a Federal loan to Syrah for the expansion of their active anode material processing facility in Vidalia, Louisiana (see enclosed Site Location and Site Layout Figures). As part of this environmental review process, DOE is also conducting a historic resource review in compliance with Section 106 of the National Historic Preservation Act (NHPA).

Syrah currently operates a natural graphite based active anode material (AAM) processing facility on a 25-acre plot of land at the northwest corner of D.A. Biglane Road and Highway 131 in Vidalia, Louisiana. The facility processes natural graphite flake into carbonized leach-purified anode material, which is used to manufacture lithium-ion batteries for electric vehicles, energy storage, and other applications. Syrah's proposed expansion of their facility includes new process and material handling structures, a new administration building, expanded parking facilities, and potential wastewater discharge infrastructure. Based on preliminary estimates, approximately 150 jobs would be created during construction, and approximately 55 jobs for facility operation. Once completed, Syrah expects to produce a total of 10,000 metric tons of AAM per year.

This letter is intended to notify you of the proposed Federal project (a potential loan to Syrah), identify if you have an interest in the proposed project site, and provide you with the opportunity to comment and engage DOE in government-to-government consultation on the proposed expansion project in Vidalia, Louisiana. Any comments or concerns you provide will help ensure that DOE considers Tribal interests and complies with its NEPA

and NHPA Section 106 responsibilities. We want to give you the opportunity to raise any issues or concerns you may have regarding the site.

I would greatly appreciate notification if you do or do not have an interest in the project site, as well as any comments or concerns you may have by October 8, 2021. Should you have an interest in the project site, I will provide you with additional information pursuant to NEPA and the NHPA as it becomes available. Please provide your notification of interest and any comments or concerns by email at [Todd.Stribley@hq.doe.gov](mailto:Todd.Stribley@hq.doe.gov), or I can also be reached by telephone at 303-275-4549.

Respectfully,

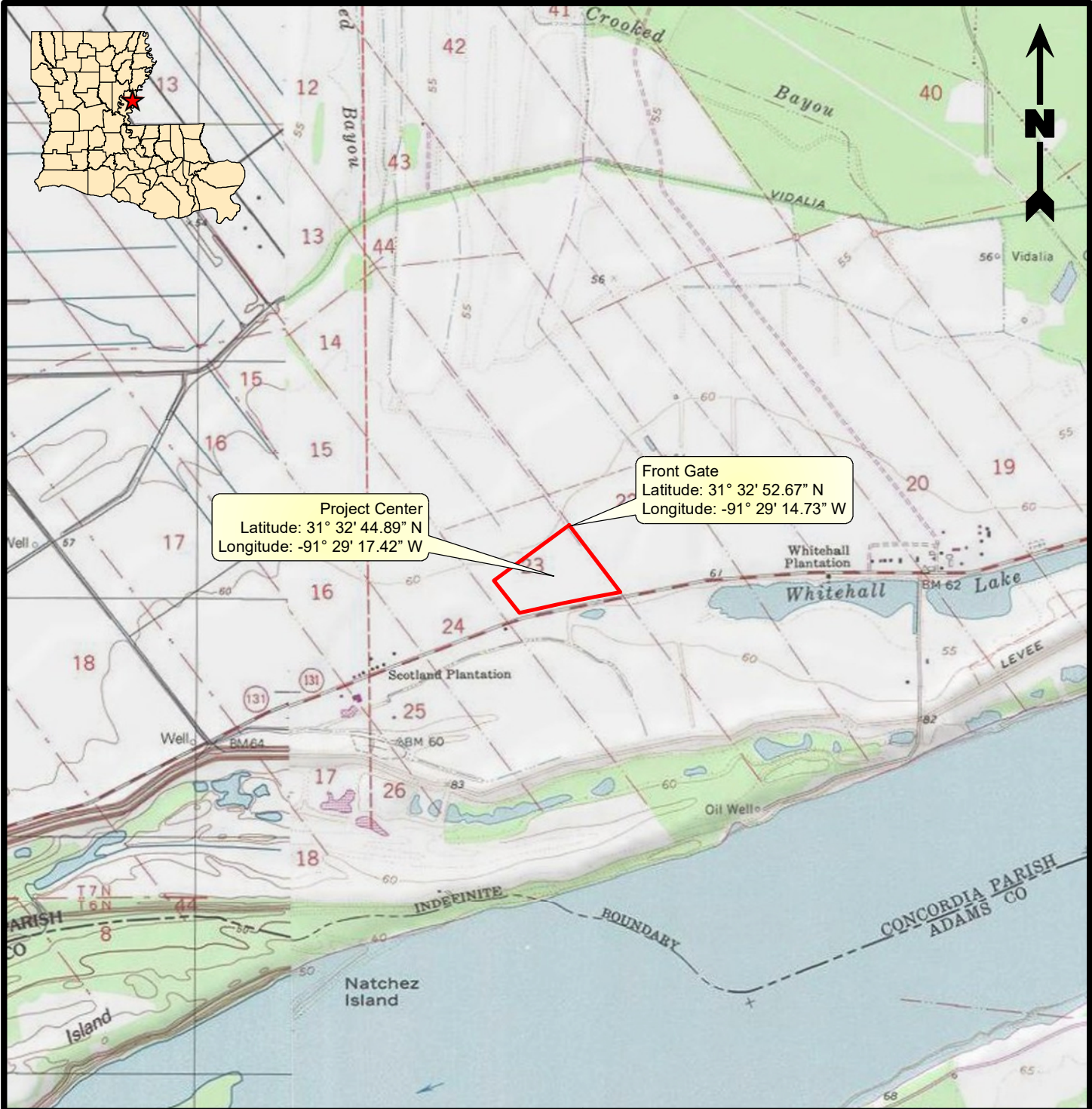


Todd Stribley  
NEPA Document Manager  
Loan Programs Office

cc: Alina Shively, Tribal Historic Preservation Officer

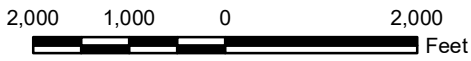
Attachments:

Site Location Map  
Site Layout Figure



Project Center  
 Latitude: 31° 32' 44.89" N  
 Longitude: -91° 29' 17.42" W

Front Gate  
 Latitude: 31° 32' 52.67" N  
 Longitude: -91° 29' 14.73" W



**Legend**

Syrah Property Boundary

**Reference**

Base map comprised of United States Geological Survey (USGS) 7.5-minute topographic maps, "Ferriday South, LA", and "Natchez, LA".

**Site Location Map**

Environmental Assessment  
 Concordia Parish, Louisiana

**Syrah Technologies LLC**  
 Syrah Active Anode Material Facility



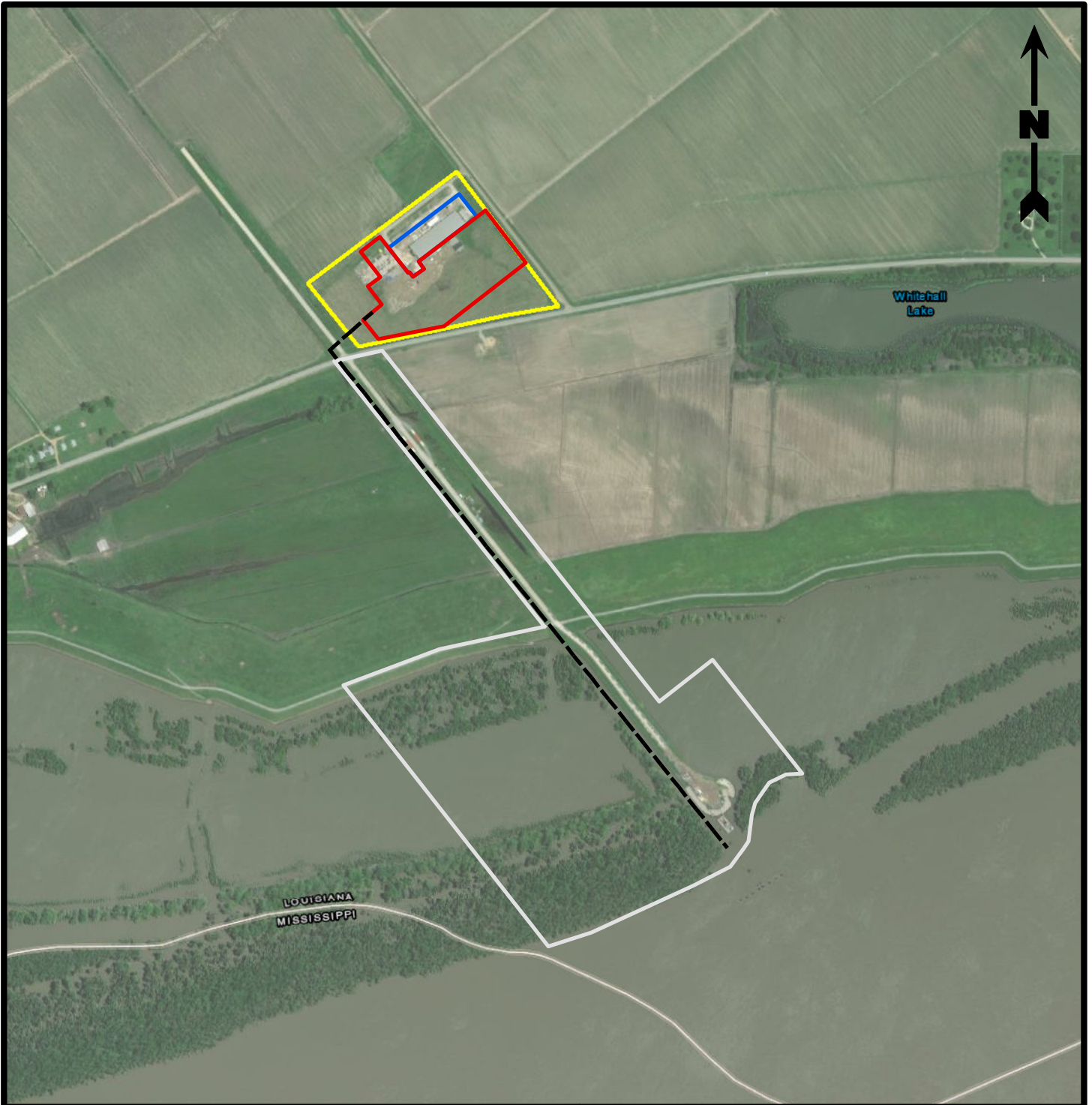
**PROVIDENCE**

Drawn By	TDJ	8/27/2021
Checked By	TDJ	8/27/2021
Approved By	CJD	8/27/2021

Project Number	1184-001
Drawing Number	1184-001-A012

**1**  
Figure





**Legend**

- Syrah Property Boundary
- Port of Vidalia Property Boundary
- New Facilities
- Existing Facilities
- Route of Discharge Pipeline Under Consideration

**Reference**

Base map comprised of ESRI's World Imagery exported 08/27/21  
 Map comprised of client provided image.

**Project Site Map**

Environmental Assessment  
 Concordia Parish, Louisiana

**Syrah Technologies LLC**

Syrah Active Anode Material Facility



**PROVIDENCE**

Drawn By	TDJ	8/27/2021
Checked By	TDJ	8/27/2021
Approved By	CJD	8/27/2021

Project Number	<b>2</b>
1184-001	
Drawing Number	Figure
1184-001-A016	

**From:** [Carleton, Ken](#)  
**To:** [Stribley, Todd](#)  
**Subject:** [EXTERNAL] Proposed Federal Loan to Expand Syrah Technologies LLC's Active Anode Materials Processing Facility in Vidalia, Concordia Parish, Louisiana  
**Date:** Monday, September 20, 2021 2:12:32 PM

---

Todd Stribley  
NEPA Document Manager  
Loan Programs Office  
Department of Energy

RE: Proposed Federal Loan to Expand Syrah Technologies LLC's Active Anode Materials Processing Facility in Vidalia, Concordia Parish, Louisiana

Dear Mr. Stribley:

I am in receipt of your letter of September 3, 2021, to Chief Cyrus Ben, regarding the above proposed undertaking. This project is within the Mississippi Band of Choctaw Indians' area of concern and we do wish to be a consulting party to the National Historic Preservation Act, Section 106 review of this project. When an archaeological survey of the Area of Potential Effect is conducted a copy of that report should be provided to my office at this email address for our review and comment.

Ken

**Kenneth H. Carleton**  
THPO/Archaeologist  
Mississippi Band of Choctaw Indians  
P.O. Box 6010, Choctaw, MS 39350  
Or: Forestry Bld, 101 Lagoon Road  
601.650.7316  
[kcarleton@choctaw.org](mailto:kcarleton@choctaw.org)

*← new P.O. Box, please update your files!*

\*\*\*\*\*

This message does not originate from a known Department of Energy email system.  
Use caution if this message contains attachments, links or requests for information.

\*\*\*\*\*

**From:** Stribley, Todd

**Sent:** Wednesday, November 10, 2021 1:53 PM

**To:** Carleton, Ken <[KCarleton@choctaw.org](mailto:KCarleton@choctaw.org)>

**Subject:** RE: Proposed Federal Loan to Expand Syrah Technologies LLC's Active Anode Materials Processing Facility in Vidalia, Concordia Parish, Louisiana

Ken –

As a Consulting Party in the Section 106 process, and pursuant to DOE responsibilities under National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the following is provided for your review:

- A description of the DOE undertaking and the associated area of potential effect (APE)
- Submission of the Phase 1 Cultural Resources Survey for the Syrah Vidalia Anode Material Project in Concordia Parish, Louisiana for your review (see attached PDF file), and
- DOE's finding of no historic properties affected pursuant to its Section 106 responsibilities.

### **DOE Undertaking and APE**

Syrah currently operates a natural graphite based AAM processing facility on a 25-acre plot of land at the northwest corner of D.A. Biglane Road and Highway 131 in Vidalia, Louisiana (see Attachment 1, Site Location). The facility processes natural graphite flake into carbonized leach-purified anode material, which is used to manufacture lithium-ion batteries for electric vehicles, energy storage, and other applications. Syrah's proposed expansion of their facility includes new process and material handling structures, a new administration building, expanded parking facilities, and potential wastewater discharge infrastructure.

The DOE undertaking (providing a loan to Syrah for the proposed AAM processing facility expansion in Vidalia, Louisiana) would involve scaling up the current production of 100 tons per annum (tpa) of AAM to 10,000 tpa leveraging the same size equipment and procedures currently available. The investment includes expanding the existing AAM processing facility and the equipment necessary to produce a purified spherical graphite product that is mixed with pitch and then carbonized into AAM that is suitable for sale in the lithium-ion battery market for electric vehicles. This project proposes to scale up the operating facility currently installed at Vidalia, Concordia Parish, Louisiana.

The archaeological Area of Potential Effect (APE) includes the area subject ground disturbing activities, constituting the entire 15.8-acre Project footprint (see Figures 1.1 and 1.2 in Attachment 2, A Phase 1 Cultural Resources Survey for the Syrah Vidalia Anode Material Project in Concordia Parish, Louisiana). The architectural APE included the 15.8-acre Project footprint, as well as a 0.30-mile buffer surrounding that area to address potential indirect effects.

### **DOE Finding**

In accordance with Section 106 to identify historic properties and assess adverse effects, DOE has reviewed the Phase I Cultural Resources Survey for the Syrah Vidalia Anode Material Project in Concordia Parish, Louisiana, dated October 2021 (attached with this letter). The report identified one historic isolated find (four glass fragments) and found that the isolated find does not meet the criteria for the National Register of Historic Places due to its destroyed condition and lack of historical significance. No other archaeological sites within the APE were identified. The report evaluated the view shed for above-ground resources constructed, as well as possible previously recorded above-ground

resources (including NRHP listed resources) over 50 years old within the architectural APE, and no above-ground resource findings were documented.

The report concluded that no historic architectural structures, historic areas, or archaeological sites are present within the project area, and DOE concurs that no historic properties (archaeological sites, architectural structures, or historic areas) are affected.

Please let me know if you have any comments or questions on the report or on the information provided above.

Respectfully,

**Todd Stribley**  
**Loan Programs Office**  
Office: 303.275.4549  
Cell: 301.525.5944

**From:** DOE LPO Environmental <[DOE\\_LPO@icf.com](mailto:DOE_LPO@icf.com)>  
**Sent:** Friday, March 18, 2022 12:46 PM  
**To:** info <[info@choctaw.org](mailto:info@choctaw.org)>  
**Cc:** Carleton, Ken <[KCarleton@choctaw.org](mailto:KCarleton@choctaw.org)>  
**Subject:** Syrah Draft Environmental Assessment

Dear Chief Ben,

The U.S. Department of Energy (DOE), Loan Programs Office (LPO) prepared an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) to consider the environmental impacts of its decision whether or not to provide Federal loan guarantee to Syrah Technologies, LLC (Syrah) to support the expansion of their active anode material (AAM) processing facility in Vidalia, Louisiana (DOE's proposed action and undertaking). The decision to prepare an EA was made in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021).

DOE's Loan Programs Office (LPO) provides loan and loan guarantee authority under three loan programs – the Innovative Energy Loan Guarantee Program (Title 17), the Advanced Technology Vehicles Manufacturing (ATVM) loan program, and the Tribal Energy Loan Guarantee Program. The primary goal of the Advanced Technology Vehicles Manufacturing Loan (ATVM) program is to finance projects and facilities located in the United States that manufacture eligible light-duty vehicles and qualifying components. Syrah's facility in Vidalia processes natural graphite flake into carbonized leach-purified anode material, which is used to manufacture lithium-ion batteries for electric vehicles, energy storage, and other applications. The proposed expansion of their facility includes new process and material handling structures, a new administration building, expanded parking facilities, and potential wastewater discharge infrastructure.

As an interested party and in accordance with DOE NEPA regulations, the EA and draft Finding of No Significant Impact (FONSI) is included as an attachment to this email for your review.

**Please review and provide any comments you may have to [DOE\\_LPO@icf.com](mailto:DOE_LPO@icf.com) by April 18, 2022.**

Sincerely,

Todd Stribley  
NEPA Document Manager  
Loan Programs Office

**From:** Carleton, Ken <[KCarleton@choctaw.org](mailto:KCarleton@choctaw.org)>  
**Sent:** Friday, March 18, 2022 2:52 PM  
**To:** DOE LPO Environmental <[DOE\\_LPO@icf.com](mailto:DOE_LPO@icf.com)>; info <[info@choctaw.org](mailto:info@choctaw.org)>  
**Subject:** RE: Syrah Draft Environmental Assessment

On 9/20/2021 I declared myself a Consulting Party under National Historic Preservation Act Section 106 and requested a copy of the cultural resource report for this project when it was completed. On 9/20/2021 Todd Stribley replied to my email stating that a copy would be provided. However, if you look at you list of who was consulted concerning cultural resources for this EA, I was neither consulted nor provided a copy of the cultural resource survey. This seems to be typical of your ability to comply with the National Historic Preservation Act Section 106 regulations regarding tribal consultation. Until I receive a copy of this report and am allowed time to review and comment on it as required by law, this review is on hold and this EA is incomplete.

**Kenneth H. Carleton**

THPO/Archaeologist  
Mississippi Band of Choctaw Indians  
P.O. Box 6010, Choctaw, MS 39350  
Or: Forestry Bld, 101 Lagoon Road  
601.650.7316  
[kcarleton@choctaw.org](mailto:kcarleton@choctaw.org)

*← new P.O. Box, please update your files!*

**From:** Stribley, Todd  
**Sent:** Friday, March 18, 2022 1:22 PM  
**To:** Carleton, Ken <[KCarleton@choctaw.org](mailto:KCarleton@choctaw.org)>  
**Subject:** FW: Proposed Federal Loan to Expand Syrah Technologies LLC's Active Anode Materials Processing Facility in Vidalia, Concordia Parish, Louisiana

Ken –

Trying to resend the archaeological survey report.

Thanks

**Todd Stribley**

**Loan Programs Office**

Office: 303.275.4549

Cell: 301.525.5944

**From:** Stribley, Todd <[todd.stribley@hq.doe.gov](mailto:todd.stribley@hq.doe.gov)>

**Sent:** Friday, March 18, 2022 2:26 PM

**To:** Carleton, Ken <[KCarleton@choctaw.org](mailto:KCarleton@choctaw.org)>

**Subject:** RE: Proposed Federal Loan to Expand Syrah Technologies LLC's Active Anode Materials Processing Facility in Vidalia, Concordia Parish, Louisiana

Ken –

Attached is same report previously delivered to you, but I was able to reduce the file size of this version.

Thanks

**Todd Stribley**

**Loan Programs Office**

Office: 303.275.4549

Cell: 301.525.5944

**From:** Carleton, Ken <[KCarleton@choctaw.org](mailto:KCarleton@choctaw.org)>

**Sent:** Friday, March 18, 2022 3:40 PM

**To:** Stribley, Todd <[todd.stribley@hq.doe.gov](mailto:todd.stribley@hq.doe.gov)>

**Subject:** [EXTERNAL] RE: Proposed Federal Loan to Expand Syrah Technologies LLC's Active Anode Materials Processing Facility in Vidalia, Concordia Parish, Louisiana

Got it

**Kenneth H. Carleton**

THPO/Archaeologist

Mississippi Band of Choctaw Indians

P.O. Box 6010, Choctaw, MS 39350

Or: Forestry Bld, 101 Lagoon Road

601.650.7316

[kcarleton@choctaw.org](mailto:kcarleton@choctaw.org)

*← new P.O. Box, please update your files!*

**From:** [Section106](#)  
**To:** [Stribley, Todd](#)  
**Subject:** [EXTERNAL] Re: Notification of a Federal Action in Vidalia, Louisiana  
**Date:** Tuesday, November 30, 2021 4:02:56 PM  
**Attachments:** [MCN AOI 2021.pdf](#)

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For your Records:

Thank you for the correspondence inquiry on historic review on the proposed federal loan to Syrah in preparation and conjunction with the Environmental Assessment pursuant to NEPA. The project is inside of the Muscogee (Creek) Nation historic area of interest (AOI). A nearby site, 16CO184 consisted of historic and prehistoric materials on the southeast side of Crooked Bayou.

**We concur and find no effect in the project areas at this time.**

I have attached a map of our Area Of Interest.

Thank you for compliance with the National Historic Preservation Act (NHPA)- Section 106 Laws, we do ask to cease operations if any inadvertent discovery is made, and to notify our THPO and the other Tribes that may have been contacted. If you have any further questions or concerns, please give us a call.

---

**From:** Stribley, Todd <todd.stribley@hq.doe.gov>  
**Sent:** Friday, September 3, 2021 12:15 PM  
**To:** David Hill <dhill@muscogeenation.com>  
**Cc:** Section106 <Section106@muscogeenation.com>  
**Subject:** Notification of a Federal Action in Vidalia, Louisiana

Dear Principal Chief Hill:

The U.S. Department of Energy (DOE) is preparing an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) to assist in determining whether to issue a Federal loan to Syrah for the expansion of their active anode material processing facility in Vidalia, Louisiana. As part of this environmental review process, DOE is also conducting a historic resource review in compliance with Section 106 of the National Historic Preservation Act (NHPA).

Attached to this email is the formal notification letter that contains additional information and figures.

Please let me know if you have any issues accessing the PDF version of the letter.

Respectfully,

**Todd Stribley**  
**Loan Programs Office**

Office: 303.275.4549

Cell: 301.525.5944

[Todd.Stribley@hq.doe.gov](mailto:Todd.Stribley@hq.doe.gov)

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**APPENDIX C**  
**RELEVANT PROJECT PLANS**

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<b>Plan</b>	<b>Location Of Plan</b>
Vidalia Operations SWPPP	Vidalia Administration Building
Vidalia AAM Production Facility Project Execution Plan	Construction Management Trailer At Vidalia Project Site
Vidalia AAM Production Facility Project Construction Plan	Construction Management Trailer at Vidalia Project Site
Inadvertent Discovery Protocol (Part of Construction Plan)	Construction Management Trailer at Vidalia Project Site
Vidalia AAM Production Facility Construction SWPPP	Construction Management Trailer at Vidalia Project Site