Oglethorpe Power Corporation
Smarr Combined Cycle Energy Facility
Monroe County, Georgia

Environmental Assessment

U.S. Department of Agriculture
Rural Utilities Service (RUS)

Prepared by:

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Submitted by:

Oglethorpe Power Corporation (OPC)
2100 East Exchange Place
Tucker, Georgia, 30084

August 2025

Smarr Combined Cycle Energy Facility
ENVIRONMENTAL ASSESSMENT

Prepared for

United States Department of Agriculture
Rural Utilities Service
1400 Independence Avenue, SW
Washington, DC 20250

Applicant

Oglethorpe Power Corporation
2100 East Exchange Place
Tucker, GA 30084

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ACS	American Community Survey
APE	Area of Potential Effect
agl	Above ground level
BACT	Best Available Control Technology
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
Btu	British Thermal Unit
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH_4	Methane
CO	Carbon Monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
CRS	Cultural Resources Survey
CSGP	Construction Stormwater General Permit
dBa	Decibel
DOE	Department of Energy
EA	Environmental Assessment
ECHO	Enforcement Compliance History Online
EIA	U.S. Energy Information Administration
EMC	Electric Membership Cooperative
EPD	Environmental Protection Division
EO	Executive Order
ESA	Endangered Species Act
°F	Fahrenheit
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act
GE	General Electric
GHG	Greenhouse Gas
GNAHRGIS	Georgia’s Natural, Archaeological, and Historic Resources GIS

Environmental Assessment

Acronym/Abbreviation	Definition
GTC	Georgia Transmission Corporation
HAP	Hazardous Air Pollutant
HRSG	Heat recovery steam generator
HUD	U.S. Department of Housing and Urban Development
IPaC	Information, Planning, and Consultation
kW	Kilowatt
kWh	Kilowatt-hour
kV	Kilovolt
Leq	Equivalent Continuous Sound Level
MBTA	Migratory Bird Treaty Act
MW	Megawatt
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standard
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standard for Hazardous Air Pollutants
NFHL	National Flood Hazard Layer
NGCC	Natural Gas-Fired Combined-Cycle
NIEHS	National Institute of Environmental Health Sciences
NO_x	Nitrogen Oxides
NOA	Notice of Availability
NPDES	National Pollutant Discharge Elimination System
NPS	National Parks Service
NREL	National Renewable Energy Laboratory
NRHP	National Register of Historic Places
NSPS	New Source Performance Standards
NWI	National Wetlands Inventory
O_3	Ozone
PM	Particulate Matter
PSD	Prevention of Significant Deterioration
PV	Photovoltaic
RICE	Reciprocating Internal Combustion Engine
RUS	Rural Utilities Service

Environmental Assessment

Acronym/Abbreviation	Definition
SCCT	Simple-Cycle Combustion Turbine
SCR	Selective Catalytic Reduction
SHPO	State Historic Preservation Office
S&L	Sargent & Lundy, LLC.
SO_2	Sulfur Dioxide
SPCC	Spill Prevention Control and Countermeasures
TDAT	Tribal Directory Assessment Tool
US	United States
USC	US Code
USACE	US Army Corps of Engineers
USCB	US Census Bureau
USDA	US Department of Agriculture
USEPA	US Environmental Protection Agency
USFWS	US Fish and Wildlife Service
USGS	United States Geologic Survey
VOC	Volatile Organic Compound
VSQG	Very Small Quantity Generator

1.0 PURPOSE AND NEED FOR THE PROJECT

Pursuant to the National Environmental Policy Act of 1969 (NEPA) and the National Historic Preservation Act of 1966 (NHPA), as amended, an Environmental Assessment (EA) has been prepared to evaluate the environmental impacts of the construction and operation of a new nominal 1,425 megawatt-net (MW-net) natural gas combined-cycle (NGCC) electric power generating facility (the "Project") for review by the U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS). This EA was prepared in accordance with the National Environmental Policy Act, 42 U.S. Code §§ 4321-4347, and RUS Environmental Policies and Procedures, 7 CFR § 1970. In addition, this EA addresses, as applicable, other environmental laws, regulations, and executive orders promulgated in relation to environmental quality, including applicable requirements under the National Historic Preservation Act (NHPA), 54 U.S.C. §§ 300101 – 306108.

The RUS action assessed in this EA is the decision to provide financing assistance for the Project. Under the Rural Electrification Act, as amended, the Secretary of Agriculture is authorized and empowered to make loans to cooperatives and others for rural electrification "for the purpose of financing the construction and operation of generating plants, electric transmission and distribution lines, or systems for the furnishing and improving of electric service to persons in rural areas" (7 U.S. Code [USC] §904). A primary function or mission of RUS is to carry out this electric loan program (7 USC §6942).

1.1 Introduction

Oglethorpe Power Corporation (An Electric Membership Corporation) ("Oglethorpe Power" or "Oglethorpe"), which is headquartered in Tucker, Georgia, is a generation cooperative operating on a not-for-profit basis. Oglethorpe generates electricity for 38 of Georgia's electric membership cooperatives (EMCs). Oglethorpe's objective is to provide reliable energy to its EMC members to meet their existing and expanding power supply needs. To address demand growth anticipated in its service territories, Oglethorpe Power is proposing to construct a new NGCC electric power generating facility with a nominal total capacity of approximately 1,425 MW-net.

Oglethorpe intends to finance the proposed Project under the RUS Electric Loan Program. As a result, financial assistance provided by RUS for the Project represents a federal action that must be reviewed under NEPA with RUS as the responsible agency. As part of its environmental review process, RUS also considers the effect of the Project on historic properties in accordance with NHPA (Section 106) and its implementing regulation, "Protection of Historic Properties" (36 CFR Part 800). Pursuant to 36 CFR §800.2(d)(3), RUS is using its procedures for public involvement under NEPA to meet any applicable responsibilities to solicit and consider the views of the public during Section 106 review. In accordance with the Administration's January 20, 2025, Executive Order 14156 declaring a National Energy Emergency, RUS will expedite the review of this EA consistent with USDA regulations at 7 CFR §1970.18.

1.2 Project Description

Oglethorpe is proposing to construct a new NGCC electric power generating facility with a nominal total capacity of approximately 1,425 MW-net. The proposed power generating facility consists of two (2) combined-cycle power blocks each in a 1 × 1 × 1 configuration (i.e., one combustion turbine, one heat recovery steam generator [HRSG], and one steam turbine per power block). The Project will be located on property currently owned by Oglethorpe Power, located approximately two miles southeast of the unincorporated community of Smarr near Forsyth, Monroe County, Georgia.

The proposed Project includes construction of the NGCC power blocks and ancillary infrastructure including:

- The following buildings:
    - Two (2) steam turbine buildings (one per power block) measuring approximately 140 ft. length (L) x 180 ft. width (W) x 55 ft. height (H);
    - Warehouse measuring approximately 91 ft. W x 187 ft. L x 35 ft. H;
    - Maintenance Building measuring approximately 41 ft. W x 122 ft. L x 20 ft. H; and
    - Control and Administration Building measuring approximately 51 ft. W x 237 ft. L x 20 ft. H.
- The following storage tanks:
    - Demineralized Water Storage Tank measuring approximately 40 ft. diameter x 48 ft. H;
    - Service Water Storage Tank measuring approximately 52 ft. diameter x 40 ft. H;
    - Ammonia Storage Tank measuring approximately 73 ft. L x 42 ft. W;
    - Oil/Water Separator Tank measuring approximately 26 ft. L x 8 ft. W;
    - Condensate Collection Tank measuring approximately 50 ft. L x 15 ft. W;
    - HRSG Blowdown Tank measuring approximately 15 ft. diameter x 16 ft. H;
    - Firewater Storage Tank measuring approximately 40 ft. diameter x 48 ft. H;
    - Other small tanks (<1,000 gallons) and drums containing distillate fuel oil, lubricating oils, and mineral oil to support plant operations and auxiliary equipment.
- Two (2) air cooled condensing steam cycle cooling units;
- Site grading and stormwater retention;
- Construction of the site access road (i.e., plant entrance road and ring road that loops around the entire power block) which will paved and measure approximately 30 ft. wide by 2,000 ft. in total length);
- Construction of on-site roadways to provide access to the power blocks and steam turbine buildings which will be paved and measure approximately 24 ft. wide by 3,500 ft. in total length);

- Paved employee parking lot designed for approximately 66 vehicles;
- Construction parking and equipment laydown areas totaling approximately 56 acres (see, Figure 1-2) will be constructed with crushed stone and maintained for future equipment laydown and contractor parking, as needed, to meet outage requirements;
- Installation of an 8-inch diameter underground water line measuring approximately 3,000 feet in length to tie-into the existing Monroe County municipal water system;
- Installation of an 18-inch diameter underground water discharge pipeline measuring approximately 200 ft. feet in length and construction of a discharge structure consisting of the discharge pipeline, silt fencing, and riprap to discharge process waters to an unnamed tributary to Little Deer Creek; and
- Construction of a new switchyard and an approximately 300 ft. long overhead 500 kV transmission line to tie-into the Georgia Transmission Corporation (GTC) 500 kV transmission line located adjacent west of the switchyard.

Project-related activities will take place within an area covering approximately 166-acres of currently undeveloped land (the "Project Area") on property that is owned by Oglethorpe Power. The approximate center of the Project Area is located at 32.97558° N latitude -83.845154° W longitude. Based on the preliminary site layout, approximately 166 acres of trees will be cleared to construct the Project. The NGCC power blocks and associated infrastructure (e.g., plant gas yard, on-site buildings, parking and road, stormwater retention features, and switchyard) will permanently occupy approximately 110 acres. The construction parking and equipment laydown areas will occupy approximately 56 acres during the construction phase of the Project, and maintained, as needed, to support outage requirements during the operational phase of the Project.

The Project Area is situated just south of the existing Smarr Energy Facility, a natural gas-fired simple-cycle electric power generating facility owned by Smarr EMC and operated by Oglethorpe under and in accordance with contractual agreements. The Project Area currently consists of a combination of pine plantation with mixed deciduous forests along stream bottoms, some of which have been harvested from time to time by Oglethorpe for biomass production. The Project Area is bounded to the north by the Smarr Energy Facility and the GTC warehouse and to the east by the Five Below Warehouse & Distribution Center. Undeveloped pine plantation forested land and Little Deer Creek border the Project Area to the south. The GTC Scherer-Bonaire 500 kilovolt (kV) transmission line corridor runs along the western boundary of the Project Area. Boundaries of the Project Area are shown in Figure 1-1.

Oglethorpe submitted an air permit application to the Georgia Environmental Protection Division (EPD) on April 14, 2025, for the construction and operation of the Project. As part of the application, Oglethorpe proposed the following air pollution controls:

- Dry low nitrogen oxide (NOx) combustors in the combustion turbines, low NOx burners in the duct burners, and post-combustion selective catalytic reduction (SCR) as Best Available Control Technology (BACT) for the control of NOx emissions;

- Good combustion practices (such as maintaining combustors to achieve an optimal air-to-fuel ratio to improve combustion efficiency and minimizing the formation of products of incomplete combustion) and post-combustion oxidation catalyst as BACT for carbon monoxide (CO) and volatile organic compound (VOC) emissions;
- Good combustion practices coupled with using natural gas exclusively as BACT for particulate matter (PM) emissions, including PM with an aerodynamic diameter of less than 10 microns (PM_{10}) and less than 2.5 microns ($PM_{2.5}$); and
- Good combustion practices coupled with efficient unit design and operation and exclusively using natural gas in the combustion turbines and duct burners as BACT for greenhouses gases in the form of carbon dioxide equivalent (CO_2e).[1]

The NGCC facility is being designed with air cooled condensing (ACC) to eliminate the need for cooling water and minimize water use and consumption. Process water generated at the facility consists of HRSG blowdown/quench water and evaporative cooler blowdown, with smaller contributions from wash water, and plant floor drains. The preliminary plan calls for all process water to be directed to one of two onsite storage tanks. From the tanks, the process water will flow through the plant's oil-water separator. After the oil-water separator, the process water will be sampled and tested in accordance with applicable permit requirements prior to being sent via underground piping for eventual discharge to an unnamed tributary to Little Deer Creek in accordance with a new National Pollutant Discharge Elimination System (NPDES) permit.

Oglethorpe anticipates that site stormwater will be directed to one of two stormwater retention ponds. Both ponds will temporarily store the stormwater before it is sent via underground piping for eventual discharge to an unnamed tributary to Little Deer Creek. Process water and stormwater will flow through some common piping downstream of the oil-water separator and retention ponds, respectively; however, process water and stormwater are not planned to be subject to common storage. As currently planned, process water and stormwater will have a common discharge point to the unnamed tributary.

Approximately 200 feet of 18-inch diameter underground pipe will be installed to convey process/stormwater to the discharge point. The pipeline will not cross any surface water features; thus, it is anticipated that the pipeline will be installed by excavating a trench, laying the pipe, and backfilling the trench. The discharge point will be located at the northeast corner of the Project Area at approximately 32.97782° N latitude and -83.841546\° W longitude. The discharge point will consist of the discharge pipe structure and include silt fencing and riprap as needed to minimize erosion. Potential impacts to water features associated with construction of the pipeline and discharge structure will be short-term in nature and minimized through the use of sediment and erosion control best management practices (BMPs) such as

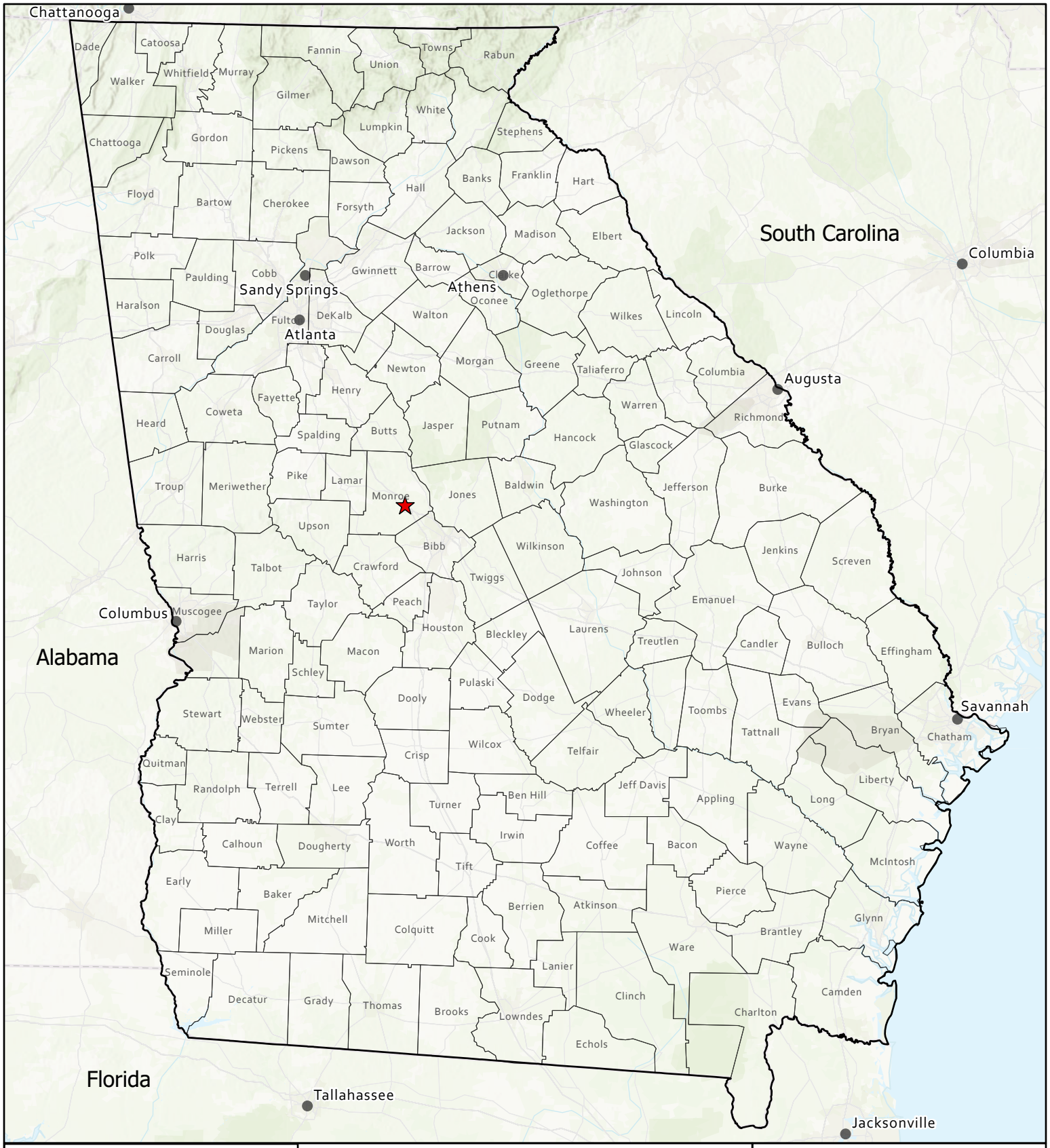
[1] Carbon dioxide equivalent or CO_2e means the number of metric tons of CO_2 emissions with the same global warming potential (GWP) as one metric ton of another GHG. CO_2e emissions are calculated by summing the emissions from each individual GHG multiplied by their respective GWP (see, 40 CFR Part 98, Equation A-1).

silt fencing, inlet protection and sediment traps, perimeter controls, erosion control blankets, and soil stabilization. Oglethorpe will be required to obtain coverage under the applicable Georgia EPD NPDES Construction Stormwater General Permit (CSGP) for stormwater discharges associated with construction activities (see, Section 3.3.3). The pipeline and discharge point are shown in Figure 1-2.

Sanitary water from bathrooms and similar operations will be separated and routed to an onsite septic system. Oglethorpe will obtain an NPDES permit from Georgia EPD for discharge of the process water. Based on preliminary water balance calculations, the NGCC facility would generate up to approximately 110 gallons per minute (gpm) during summer ambient conditions with evaporative cooling. All process water will flow through the plant's oil-water separator prior to eventual discharge to an unnamed tributary to Little Deer Creek. Based on discharge flow calculations and the hydraulic capacity of the unnamed tributary, Oglethorpe anticipates that the NPDES permit will allow for discharge of 100% of the process water. Additional detail describing the process water flows and characteristics is provided in Section 3.3.2.

A general site layout drawing of the proposed NGCC facility within the Project Area is provided as Figure 1-2. A preliminary general arrangement (GA) drawing of the proposed Project is provided as Figure 1-3. Project features shown on the GA include the location of the new NGCC power blocks, air-cooled condensers, natural gas fuel yard, ammonia storage and unloading facilities, control and administration buildings and warehousing, stormwater retention pond, electrical switchyard, and employee parking area. The Project will be constructed over a period of approximately 46-months, with initial site work scheduled to commence July 1, 2025.

Figure 1-1. Smarr Combined-Cycle Energy Facility Location



Oglethorpe Power Corporation

Smarr Combined Cycle Energy Facility

Title: Smarr Location Map	Prepared: KG
Site: Smarr	Reviewed: KS
Figure: 1	Date: 4/1/2025
	Revision: 0

★ Smarr Combined Cycle Facility

● Major City

☐ County Boundary

1 inch equals 38 miles*

N

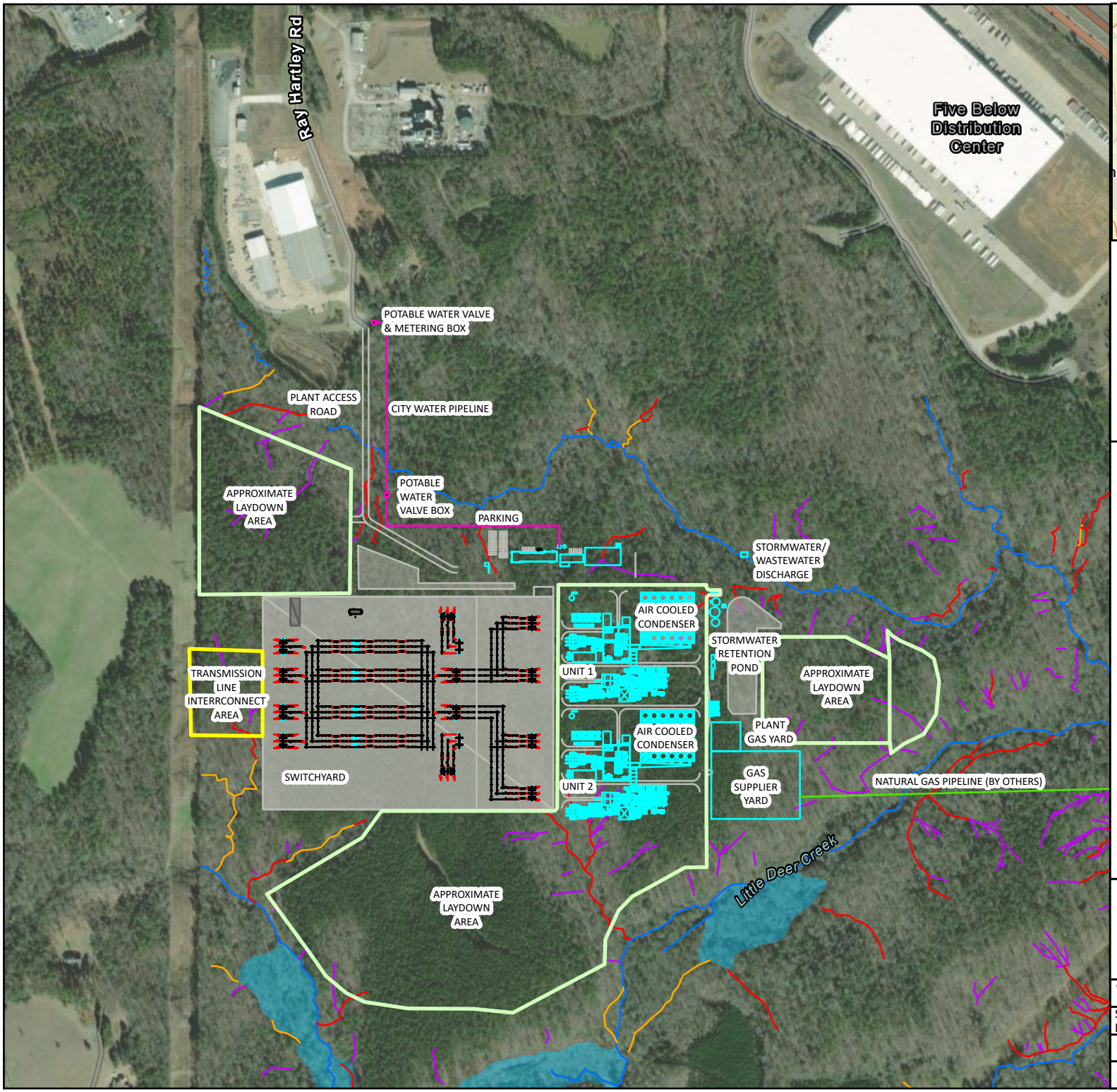
0 12.5 25 50 Miles

*When printed on 8.5" x 11" page

Disclaimer: Maps are not intended to provide survey grade data.

Sargent & Lundy

Figure 1-2. Smarr Combined-Cycle Energy Facility General Site Layout



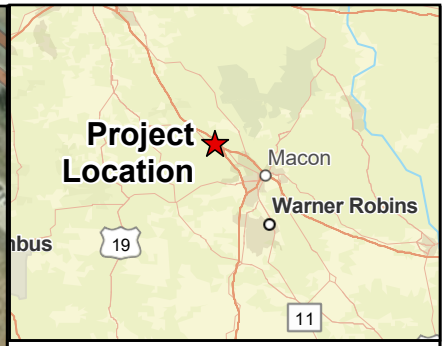


Figure 2: General Site Layout

Oglethorpe Power Corporation
Smarr Combined-Cycle Energy Facility

Legend

- City Water Pipeline
- Natural Gas Pipeline (By Others)
- Approximate Laydown Area
- Transmission Line Interconnect Area

Delineated Waters

- Ephemeral Stream
- Gully
- Intermittent Stream
- Perennial Stream
- Wetlands

N

1 inch equals 800 feet*

0 800 US Feet

*When printed on 8.5" x 11" page

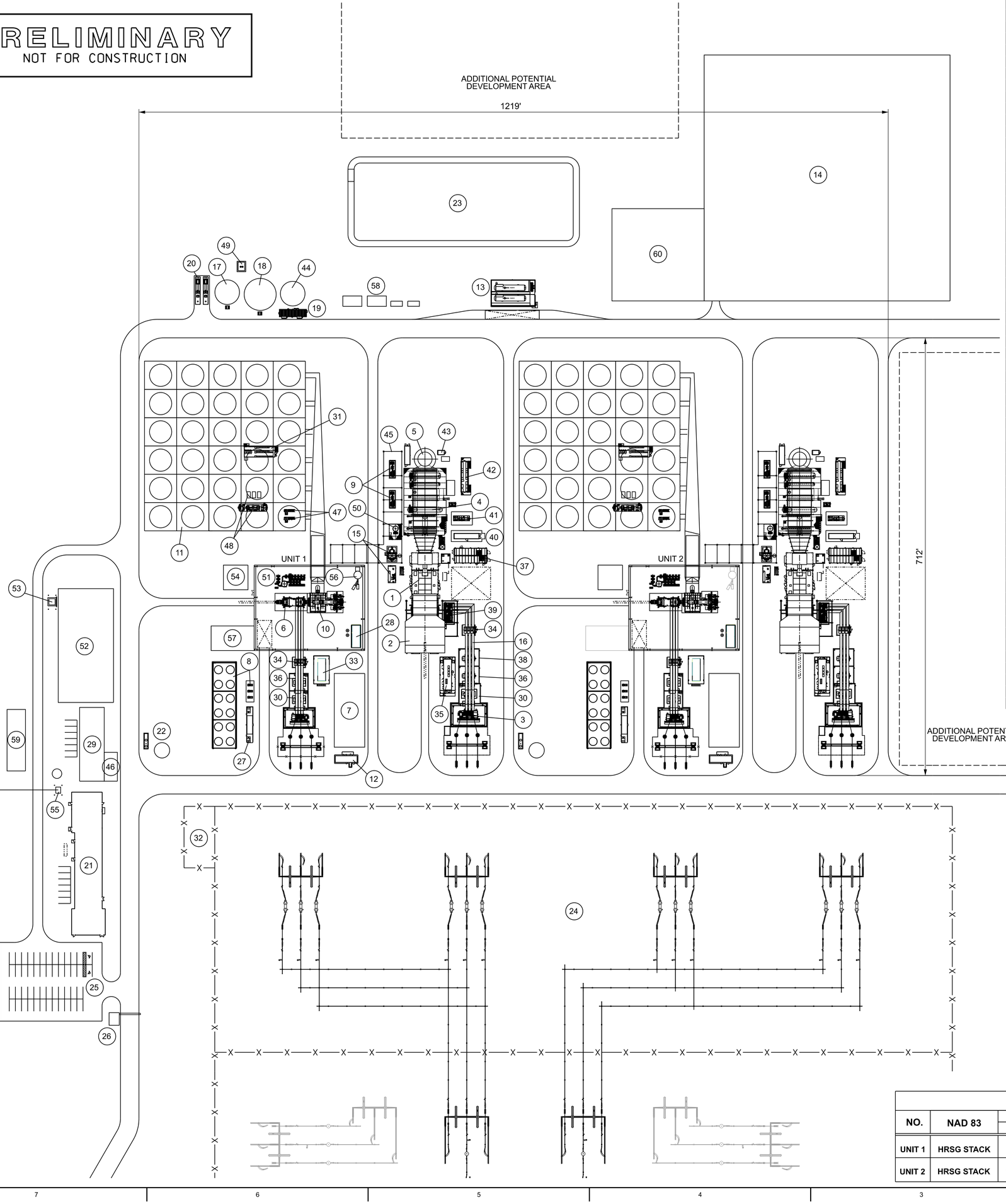
Disclaimer: Maps are not intended to provide survey grade data.

Sargent & Lundy

Title: General Site Layout	Prepared: KA
Site: Smarr Combined Cycle Energy Facility	Reviewed: KS
Figure: 2	Date: 7/11/2025
Sheet: 1	Revision: 0

Figure 1-3. Smarr Combined-Cycle Energy Facility General Arrangement Drawing

PRELIMINARY
NOT FOR CONSTRUCTION



ITEM	DESCRIPTION
1	COMBUSTION TURBINE (CTG)
2	CTG INLET AIR FILTER
3	GENERATOR STEP-UP TRANSFORMER
4	HEAT RECOVERY STEAM GENERATOR (HRSG)
5	HRSG STACK
6	STEAM TURBINE GENERATOR (STG)
7	STG ELECTRICAL BUILDING
8	FIN FAN COOLER & PUMPS
9	BOILER FEEDWATER PUMPS
10	TURBINE EXHAUST CONDENSER
11	AIR COOLED CONDENSER
12	EMERGENCY DIESEL GENERATOR
13	AMMONIA STORAGE TANKS & UNLOADING
14	GAS SUPPLIER YARD
15	NATURAL GAS FUEL EQUIPMENT FOR CTG
16	ISOPHASE BUS DUCT
17	DEMINERALIZED WATER STORAGE TANK & PUMPS
18	SERVICE WATER STORAGE TANK & PUMPS
19	FIRE WATER PUMPHOUSE
20	DEMINERALIZED WATER TREATMENT TRAILERS
21	CONTROL & ADMINISTRATION BUILDING
22	OILY WATER SEPARATOR & HOLDING TANK
23	STORM WATER RETENTION POND
24	SWITCHYARD
25	PARKING
26	GUARDHOUSE
27	FIN FAN COOLER PDC
28	COMPRESSED AIR EQUIPMENT
29	MAINTENANCE BUILDING
30	UNIT AUXILIARY TRANSFORMER (UAT)
31	AIR COOLED CONDENSER PDC
32	115kV-13.2kV TRANSFORMER BY GTC/CGAEMC
33	ST EXCITATION MODULE
34	GENERATOR CIRCUIT BREAKER
35	LCI / EXCITATION COMPARTMENT
36	EXCITATION TRANSFORMER
37	PEECC
38	LCI TRANSFORMER
39	GT LUBE OIL SKID
40	AMMONIA BLOWER SKID
41	HRSG FUEL GAS SKID
42	SECONDARY E-ROOM
43	CEMS
44	FIRE WATER STORAGE TANK
45	PIPERACK
46	CHEMICAL STORAGE AND UNLOADING
47	VACUUM PUMPS SKIDS
48	CONDENSATE COLLECTION TANK & PUMPS
49	PLANT SUMP PUMPS
50	HRSG BLOWDOWN TANK
51	SUPERHEATER & GLAND STEAM CONDENSER
52	WAREHOUSE
53	CONSTRUCTION POWER TRANSFORMER
54	STORM SHELTER
55	CITY WATER TRANSFER
56	AUXILIARY BOILER
57	AUXILIARY BOILER PDC
58	SPARE GSU / UAT (2 EACH)
59	SEPTIC FIELD
60	PLANT GAS YARD

NORTH

60' 0 60' 120' 180'
GRAPHIC SCALE

DRAWING SCALE
1" = 60'-0"

UTM COORDINATE TABLE

NO.	NAD 83	STATE PLANE		UTM	
		NORTH	EAST	NORTH	EAST
UNIT 1	HRSG STACK	1082750.91	2395864.08	3652252.448	234311.155
UNIT 2	HRSG STACK	1082141.39	2395864.08	3652066.647	234305.561

HOLD INFORMATION

NO.	DESCRIPTION

CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF ITS SUB-CONTRACTOR(S)) PERFORMING THE WORK.

RELEASE INFORMATION

REV.	DATE	DESCRIPTION
0	12/20/2024	FOR BIDS
1	01/15/2025	FOR INFORMATION
2	02/05/2025	FOR INFORMATION
3	03/06/2025	FOR BIDS

ISSUE PURPOSE: FOR BIDS

SPECIFICATION: ----

PROJECT NO.: A15212.001

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF ENTER NAME.

ENTER NAME
ENTER DATE

MY LICENSE RENEWAL DATE IS: ENTER DATE
PAGES OR SHEETS COVERED BY THIS SEAL:
THIS DOCUMENT ONLY.

CERTIFICATE OF AUTHORIZATION (WHEN REQ'D)

CAD FILE NAME: SK-GA-OP-SMR-0001.DGN

PREPARED BY: RM

REVIEWED BY: RAM

APPROVED BY: HE

Sargent & Lundy

SARGENT & LUNDY
55 EAST MONROE STREET
CHICAGO, ILLINOIS 60603-5780

OglethorpePower

PROJECT

SMARR COMBINED CYCLE
ENERGY FACILITY
GE 7HA.03 (2) 1 X1 X1

OGLETHORPE POWER

DRAWING TITLE

GENERAL ARRANGEMENT
SITE PLAN

DRAWING NUMBER	REVISION
SK-GA-OP-SMR-0001	3

SHEET 01 OF 01

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Revision 11A, Revision Date: 04-30-2010

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1.4 RUS Purpose and Need

USDA Rural Development is a mission area that includes three federal agencies: Rural Business-Cooperative Service, Rural Housing Service, and RUS. The agencies have more than 50 programs that provide financial assistance and a variety of technical and educational assistance to eligible rural and tribal populations, eligible communities, individuals, cooperatives, and other entities with a goal of improving the quality of life, sustainability, infrastructure, economic opportunity, development, and security in rural America. Financial assistance can include direct loans, guaranteed loans, and grants in order to accomplish program objectives.

Oglethorpe Power is seeking financial assistance for the proposed Project from RUS as authorized by the Rural Electrification Act, as amended, which, among other things, authorizes the Secretary of Agriculture to make loans to cooperatives for the purpose of financing the construction and operation of generating plants (7 USC §904). The RUS action requested by Oglethorpe and evaluated in this EA is the decision to provide financing for the Project.

1.5 Oglethorpe Power Purpose and Need

Oglethorpe is responsible for providing reliable, efficient, and low-cost power to its 38 EMC member cooperatives that in turn provide power to more than 4 million Georgians. Oglethorpe's members serve a region covering approximately 73% of the land area in the State of Georgia, encompassing 157 of the State's 159 counties. Oglethorpe members are the principal suppliers for the power needs of rural Georgia.

Consistent with its obligation to provide reliable, efficient, and low-cost power, Oglethorpe engages in a long-range planning process that evaluates member energy requirements and projected power supply needs. On an annual basis, Oglethorpe develops a 10-year load forecast using load forecast projections provided by each individual member to estimate capacity and peak demand requirements. The consolidated load forecast is developed using a variety of techniques including analysis of historical growth patterns and projections of future growth. Oglethorpe's most recent updated load forecast was completed in December of 2024, taking into account updated economic development projects, capital investments, and job creation projects in its member service territories.

Georgia is projected to experience a significant increase in energy demand, including large loads, over the next several years. Information and data published by the Georgia Department of Economic Development (GDEcD) demonstrate the substantial economic development that has taken place in Georgia over the past several years. In August 2023, GDEcD announced that Fisal Year 2023 (July 2022 through June 2023) broke state records for capital investment and economic development for the third year in a row with "investments in facility expansions and new locations totaling more than $24 billion, resulting in 38,400 new jobs through 426 projects" (GDEcD, 2023a). Economic investment and job growth continued through 2024 with GDEcD announcing that its Global Commerce team "supported 429 facility expansions and new locations resulting in more than $20.3 billion in investment and the commitment of 26,900 new, private

sector jobs statewide" (GDEcD, 2024). Although data center locations and the expanding e-mobility industry combined to account for approximately two-thirds of the capital investment and job creation in the state, substantial increases and economic growth have also been announced across various other industries including aerospace, food processing, and agribusiness-related industries (GDEcD, 2024).

While Oglethorpe member EMCs do not serve any major cities, portions of their service territories are in close proximity to urban areas that have experienced substantial growth due to the expansion of urban areas into suburban areas and the growth of suburban areas into neighboring rural areas. Furthermore, some eighty-two percent of the new jobs created and more than $20 billion in investments announced by GDEcD are located in communities outside of the 10-county Atlanta region (GDEcD, 2023b, GDEcD, 2025).

Oglethorpe Power has experienced continuous growth in demand for power from its member EMCs over the past several years. Total member annual energy requirements (megawatt-hours (MWh)) supplied by Oglethorpe increased from 22,187,311 MWh in 2020 to 28,289,147 MWh in 2023, an increase of more than 25% over a three-year period, and Oglethorpe expects the growth in demand to continue (OPC, 2020 and OPC, 2023). In Georgia, loads of 900 kilowatts (kW) or more are subject to competition at initial operation, and Oglethorpe anticipates that its member EMCs will be selected to meet some of the additional large loads in their service territories (OPC, 2023). Given the projected load growth, Oglethorpe and its member EMCs use the best information available to plan for anticipated power needs. Evaluations include not only the anticipated increase in peak demand, but the fact that many of the large load projects reflect higher load factors that require power generation and consistent energy delivery 24-hours/day as opposed to increased energy delivery only during specific times (e.g., periods of peak demand). Based on these projections, member EMCs have requested that Oglethorpe construct additional generation facilities to serve this projected baseload growth (OPC, 2023).

Based on an evaluation of projected load growth, capacity obligations, load factors, and reliability requirements, Oglethorpe and its member EMCs determined that new natural gas combined-cycle generation capable of supplying approximately 1,425 MW-net of firm capacity and dispatchable energy represents the best fit alternative to meet member daily and year-round load requirements, maximum system capacity demands, and planning reserve margin targets. NGCC units can be operated year-round to meet system demand needs and load factors, including overnight, during cold predawn winter mornings, and during warm summer evenings, and can respond quickly to short-term periods of peak demand.

2. ALTERNATIVES INCLUDING THE PROPOSED ACTION AND NO ACTION

This chapter describes the No Action, the Proposed Action, and the alternatives evaluated by Oglethorpe Power to provide its members with new firm capacity and a dispatchable energy resource capable of meeting projected member load and energy resource requirements. As reflected below, Oglethorpe and its member EMCs considered a range of alternatives available to meet projected system demand and load factors. This evaluation was conducted in accordance with the RUS requirements in 7 CFR §1970.13.

2.1 Proposed Action

Based on a review of available options, Oglethorpe and its member EMCs determined that constructing a new NGCC generating resource using the latest advanced class technology represents the best fit option to fulfill the purpose and need for the proposed Project. The proposed new NGCC facility fulfills all Project goals and objectives, including the ability to provide approximately 1,425 MW-net of reliable and cost-effective firm capacity and dispatchable energy by the second quarter of 2029.

Project development work for the new generating units includes site clearing/grading and stormwater retention; construction of the NGCC power blocks and ancillary equipment including process cooling; construction of administration/control buildings, warehousing, and equipment storage; construction of the natural gas fuel yard, ammonia storage and unloading facilities, on-site roadways, temporary construction parking, and equipment laydown areas; and tie-ins to the existing natural gas and water infrastructure (collectively the "Proposed Action"). In addition, the Proposed Action includes a new 500 kV interconnect substation that will be constructed by GTC immediately adjacent to the NGCC facility and included within the Project Area.

The Proposed Action includes the following major new components:[2]

1. Two General Electric (GE) 7HA.03 natural gas-fired combustion turbines, two HRSGs equipped with supplemental duct firing, and two steam turbine generators;
2. Two air cooled condensers;
3. Two nominal 2,000 kW emergency diesel generators;
4. One nominal 420 horsepower (hp) diesel-fired fire water pump engine;
5. Two nominal 7 million British thermal units per hour (MMBtu/hr) natural gas-fired dew point heaters;

[2] Auxiliary equipment sizes provided herein are based on preliminary engineering and may change during detailed design of the combined-cycle facility; however, any changes are expected to be minimal and would not affect findings in this EA.

6. Ammonia storage tanks and ammonia unloading system;
7. Fire water, service water, and demineralized water storage tanks;
8. Administration/control buildings and equipment warehousing and maintenance;
9. Stormwater retention;
10. On-site roadways and parking for approximately 30 full-time employees during the operations phase; and
11. GTC 500 kV interconnect switchyard and transmission line tie-in.

The natural gas-fired GE 7HA.03 combustion turbines will each achieve a nominal gross output of approximately 440 MW-gross (at annual average ambient conditions). The combustion turbines will be equipped with an evaporative inlet cooling system designed to improve combustion turbine performance and efficiency during periods of high ambient temperature. Waste heat from the combustion turbines will be exhausted to the HRSGs to provide steam to the steam turbine generator. The HRSGs will be designed with supplemental duct firing to add additional heat to the exhaust gas and increase steam generation and energy output. Net output from each power block will be approximately 638 MW-net (at annual average ambient conditions without supplemental duct firing). Exhaust gas from the units will be exhausted to atmosphere through the HRSG stacks, each of which will have a stack height of approximately 180 feet above ground level (agl).

The NGCC units will be designed with air cooled condensers (ACC) to reject heat resulting from condensing steam exiting the steam turbines. The ACC cooling system eliminates the need for a large volume of cooling water and large cooling water pumps and significantly reduces plant water consumption. A steam duct will convey the steam turbine exhaust to the ACC where it condenses in finned tubes that are cooled by fans using ambient air. Once the steam is condensed, it drains into a condensate storage tank for reuse. No cooling water is required because heat is rejected directly into the atmosphere.

Natural gas for the new NGCC units will be supplied via the existing Southern Natural Gas (SONAT) South Main interstate natural gas pipeline located approximately 0.9 miles northeast of the proposed NGCC power blocks. An approximately 1.1-mile-long lateral pipeline will be constructed by SONAT to connect the interstate pipeline to the NGCC facility's natural gas fuel yard located within the Project Area. Approximately 3,000 feet of the lateral will be constructed outside of Oglethorpe property. The gas lateral will be constructed by SONAT in conjunction with and as part of its South Main interstate pipeline upgrade program. SONAT is making upgrades to its system in response to increased demand for natural gas in the region independent of the Proposed Action. Those upgrades, including the new lateral, will be evaluated by the Federal Energy Regulatory Commission (FERC) and therefore fall outside of RUS's jurisdiction.

Environmental Assessment

The Proposed Action includes the construction of a new 500 kV interconnect switchyard and transmission line tie-in included within the Project Area. The new switchyard will be designed to allow the facility to connect to the existing GTC Scherer-Bonaire 500 kV overhead transmission line located west of the Project Area boundary via an approximately 300 ft. long 500 kV overhead transmission line tie-in. As part of its regional upgrades and to ensure reliability and maintainability of its transmission system, GTC plans to construct a new redundant overhead 500 kV transmission line that extends from Smarr to a new 500 kV switching station called Rum Creek located approximately 7.4 miles north of the Project Area. The new transmission line is being planned by GTC as part of an overall system upgrade program in response to load growth and integration of utility-scale solar generating projects in the region. As such, environmental impacts associated with the planned transmission line are being evaluated by RUS as a separate action.

Water for the NGCC facility will be obtained from the Monroe County municipal water system. Approximately 3,000 feet of 8-inch diameter water supply pipeline will be constructed to connect the NGCC facility to the municipal water supply which currently extends to the GTC Warehouse along Ray Hartley Road. Sanitary water from the NGCC facility will be routed to an on-site septic system located north of the proposed warehouse and maintenance buildings. Process water generated during operation of the NGCC power plant will be directed to one of two onsite storage tanks prior to treatment in the plant's oil-water separator and eventual discharge to an unnamed tributary to Little Deer Creek. Site stormwater will be directed to one of two stormwater retention ponds for temporary storage for eventual discharge to an unnamed tributary to Little Deer Creek. The municipal water pipeline, septic system, stormwater ponds, oil-water separator, and common water discharge piping and infrastructure are all located within the Project Area.

The Proposed Action will be constructed using standard construction techniques and sequencing. In total, approximately 166-acres of land will be disturbed for construction of the NGCC facility and associated equipment. Construction of the Proposed Action will occur over a period of approximately 46-months, with construction activities scheduled to commence July 1, 2025. The Proposed Action will provide reliable and cost-effective power to meet projected EMC member daily and year-round load requirements, maximum system capacity demands, peak load events, and planning reserve margin targets. NGCC units can be operated on a continuous basis to meet system capacity requirements and can respond quickly to short-term periods of peak demand.

2.2 Other Alternatives Evaluated

Oglethorpe and its member EMCs considered the following alternatives to meet projected member capacity requirements, peak energy demand, and capacity reserve margin requirements:

1. Load Management
2. Renewable Energy Resources
    a) Wind Generation
    b) Biomass Generation
    c) Solar Generation with Battery Energy Storage
3. Other Fossil-Based Generation
    a) Reciprocating Internal Combustion Engines and Combined Heat and Power
    b) Natural Gas Simple-Cycle Combustion Turbines

Each alternative was evaluated with respect to the purpose and need for the Proposed Action, and Oglethorpe's goal of providing reliable, cost-effective, and dispatchable power to meet demand. Evaluations included both the anticipated increase in peak demand and the fact that many of the announced large load projects consist of higher load factors that require reliable power generation and consistent energy delivery.

2.2.1 Load Management

Load management, sometimes called demand-side management, is used during times of exceptionally elevated demand, which often coincides with extreme ambient temperatures, to balance the supply of electricity available with the electrical load by reducing load rather than increasing generation. Oglethorpe's member EMCs have implemented load management systems designed to promote direct load control as a means of controlling peak demand by using remotely activated devices that control operation of large power consuming appliances such as air conditioners, heat pumps, water heaters, and other appliances. In addition, some members have arranged with large commercial and industrial accounts or irrigation accounts to curtail use on extremely hot, high load days. Oglethorpe Power estimates that these load control switches can reduce summer peak demand by approximately 247.5 MW.

Although load management programs can have a positive effect on reducing load during periods of peak demand, load management generally does not directly affect the need for intermediate or baseload capacity. Given the attributes of the projected capacity needs (i.e., intermediate and continuous baseload demand in addition to peaking capacity), load management programs would not achieve the purpose and need for the Proposed Action. Load management will continue to be implemented by member EMCs to reduce periods of peak demand; however, it does not by itself obviate the need for additional capacity during non-peak times. As a result, this alternative was not selected.

2.2.2 Distributed Generation

Distributed generation refers to a variety of technologies that generate electricity at or near where it is used. Distributed generation alternatives include technologies such as fuel cells, micro-turbines, internal combustion engines, combined heat and power, and individual or community based solar photovoltaic (PV) generation. Distributed generation installations typically serve a single user such as a home or commercial development or may be part of a microgrid such as a major industrial facility, military base, or large college campus (USEPA, 2025a).

Oglethorpe member EMCs currently have distributed generation resources within their service territories; however, Oglethorpe's business model is to provide its members with wholesale electric power at the lowest possible cost. A key element of that model is to generate power at central station power plants to achieve economies of scale and produce power at a competitive cost. Cost savings achieved through these economies of scale are not attainable with distributed generation technologies. Based on the complexity of integrating numerous small output distributed energy resources throughout the Oglethorpe member service territories, as well as costs and potential environmental management considerations, Oglethorpe concluded that distributed generation alternatives would not meet the projected demand for baseload and intermediate capacity. As a result, this alternative was not selected.

2.2.3 Renewable Energy Alternatives

Renewable energy resources are available to the 38 Oglethorpe member EMCs through power purchase agreements with Green Power EMC (Green Power). Green Power is a not-for-profit corporation founded in 2001 to support 38 of Georgia EMCs' renewable generating resource targets (Green Power, 2025). Renewable energy resources available through Green Power include solar, landfill gas, hydro, wood waste, and wind. In 2023, approximately 1,500 MW of solar energy was available to 38 Georgia EMCs through Green Power, representing more than 97% of Green Power's renewable generating capacity (Green Power, 2025). The remaining 3% of Green Power's capacity was provided by other renewable energy resources including landfill gas, wood waste or biomass, and hydroelectric. There is limited opportunity to significantly increase the availability of landfill gas or hydroelectric generation. Consequently, those renewable resources would not be available to meet the needs and objectives of the Proposed Action. As a result, this alternative was not selected.

2.2.3.1 Wind Generation

Wind farms have become an alternative method of generating electricity in areas with relatively high sustained winds and sufficient land areas for wind farm development. Key wind producing areas are generally located in the west-central U.S., where the annual average wind speed is at least 13 miles per hour (mph) for utility-scale turbines (EIA, 2025a). Based on wind speed data published by the National Renewable Energy Laboratory (NREL), wind speeds in Georgia at 100 meters (m) agl average less than 5 mph on an annual basis and are not suitable for utility-sale wind generation (DOE, 2025). There is currently

no utility-scale wind power generation in Georgia, and Green Power's wind generating capacity is currently limited to only 0.008 MW at three separate locations. Given these limitations, wind generation is not a viable alternative for the additional energy and capacity needed to meet the Proposed Action's needs and objectives.

2.2.3.2 Biomass

Biomass, such as plant matter (e.g., forest and agricultural materials), is a renewable resource available for limited power generation. As of 2022, there was an installed biomass generating capacity of 12,400 MW, representing approximately 1.2 percent of total generating capacity in the U.S. (EIA, 2025b). Because of its extensive pine forests and existing forest-related industries, Georgia has the potential for electricity production using wood waste. Although biomass offers the potential for power generation in Georgia, the generating capacity of a biomass project is limited due to the availability of biomass fuel in the area of the project and the logistics of transporting sufficient quantities of fuel to the biomass facility. In general, an adequate supply of reliable and sustainable biomass must be located within approximately 50 miles of the power plant for transportation costs to be economical (NACD, 2025).

Oglethorpe has evaluated woody biomass resources on a county-by-county basis to determine the potential quantities available for energy use on a sustainable basis at various sites in Georgia and determined, based on the quantity of sustainable biomass needed to meet the objectives of the Proposed Action, that designing the Project as a biomass generating resource would be impractical. Furthermore, from a fuel and fuel delivery perspective and comparing the output of a biomass fueled resource to that of a NGCC resource, natural gas is the preferred fuel as it can be easily delivered to the facility at sufficient quantities to support the capacity needed for Oglethorpe member EMC requirements. Given these limitations, biomass is not a viable alternative to provide the additional capacity to meet the Proposed Action's needs and objectives.

2.2.3.3 Solar Generation with Battery Energy Storage

Solar facilities in Georgia range from household and community scale installations to utility scale projects at some 42 locations throughout Georgia (Green Power, 2025). Although solar generation represents the most significant contributor to renewable energy capacity in Georgia, solar facilities are capable of generating energy only during daylight hours. Annual capacity factors achieved by utility-scale solar power facilities in Georgia average approximately 23.2% and are lower during the winter months with fewer daylight hours and longer periods of cloud cover (EIA, 2019a). As such, solar energy is classified as intermittent and does not provide baseload capacity. Given these limitations, a higher nameplate capacity combined with energy storage would be required for a solar resource to match the total energy output from the fully dispatchable proposed NGCC plant.

In Georgia, extended periods of high demand are often related to warm or cold weather events that can last for several days; thus, new energy storage facilities would be required in combination with the solar PV generation to store a portion of the solar generation for use at times when solar is not available. Battery

energy storage systems (BESS) would be the only energy storage system available to Oglethorpe that could be combined with commercial scale solar PV generation. BESS have been designed to provide short-term peaking power during relatively short periods of high demand (e.g., 2 to 4 hours); however, BESS is not currently used for extended periods of firm generating capacity (EIA, 2025c). Furthermore, energy storage systems are not primary electricity generation sources in that they must use electricity supplied by a separate generating resource to charge the storage system; thus, energy storage systems use more electricity for charging than they can provide when discharging and supplying electricity. As a result, both the solar generating resource and the energy storage resource would need to have a nameplate capacity significantly greater than the 1,435 MW proposed NGCC resource achieve the purpose and need for the Proposed Action.

BESS is being pursued by Oglethorpe and Oglethorpe's member EMCs as part of an overall energy portfolio and other grid applications. However, based on a review of commercially available BESS technologies, project development costs (including siting and land acquisition), reliability, and dispatchability, Oglethorpe determined that solar PV generation coupled with BESS would not achieve the purpose and need for the Proposed Action, including the need for cost-effective capacity from a fully dispatchable resource. The solar/battery alternative would require extensive study and engineering to determine the appropriate size, location, and duration of solar/battery resources available (if any) to provide sufficient capacity and to avoid exceeding interconnection capacity limits. Locating and procuring suitable parcels available for utility-scale solar development would represent a significant logistical challenge and incorporating more than 1,425 MW-net of solar/BESS capacity into the electrical grid would push the initial operating date beyond that needed to meet projected EMC member demand requirements and timelines. In addition, storage duration and energy capacity limitations preclude BESS from consideration as the duration of energy availability from commercially available BESS would be insufficient to replace the functionality and utility of the NGCC. For these reasons, Oglethorpe and its member EMCs determined that solar PV coupled with BESS is not a viable alternative to the Proposed Action.

2.2.4 Alternative Fossil-Based Generation

Alternative fossil-based electric power generating technologies, including natural gas-fired simple-cycle combustion turbines, and reciprocating internal combustion engine (RICE) options, were evaluated against the stated purpose and needs of the proposed Project.

2.2.4.1 Reciprocating Internal Combustion Engines and Combined Heat and Power

Stationary RICE and reciprocating engine combined heat and power (CHP) installations can be used for smaller generation needs and as backup power at large load sources and industrial facilities. Stationary RICE are internal combustion engines that use reciprocating motion to convert heat energy into mechanical work to turn a generator. There are two basic types of stationary RICE, spark ignition (SI) and compression ignition (CI) engines.

RICE have typically been used for backup, standby, or emergency power, but have increasingly been used for larger utility-scale power generation applications for peaking capacity and backup for intermittent renewable resources such as wind and solar (Patel, 2017). Reciprocating engines tend to be smaller than other types of natural gas-fired electricity generators. Based on information available from EIA, as of 2018, the capacity of the average reciprocating engine generator was 4 MW. Before 2010, reciprocating engines typically had no more than 9 MW in capacity, but in recent years, larger units that range from 16 MW to approximately 19 MW have become available (EIA, 2019b). Currently available utility-sized RICE engines are typically sized to produce approximately 9 MW or 18 MW of power, which means between 67 and 133 individual engines would be needed to provide the proposed 1,200 MW of capacity. Coordinating the dispatch of such a large number of engines would be impractical and would not be a viable alternative to the Proposed Action.

CHP installations can also be used for smaller generation needs and as backup power at large load sources and industrial facilities. A typical application for reciprocating engine CHP would be an industrial facility with a 2 MW natural gas engine-driven CHP system comprised of multiple 500 to 800 kW engine gensets to provide power to the facility and low-pressure steam for process heating (USEPA, 2015). Assuming an average engine CHP, multiple units would need to be distributed throughout the service territory to replace the planned NGCC unit, and any potential efficiency gains associated with using low-pressure steam for process heating would be impractical or lost. Given these limitations, reciprocating engine CHP is not a viable alternative to the Proposed Action and this alternative was not selected.

2.2.4.2 Natural Gas Simple-Cycle Combustion Turbines

Simple-cycle combustion turbines (SCCTs) are used in a variety of industries, including power generation. SCCTs produce electricity by combusting natural gas (or other fuels) in a turbine that is directly connected to a generator. SCCTs are the most basic operating cycle of gas turbines. Because SCCT units do not generate steam, simple-cycle units can start quickly to respond to changing demand. SCCTs provide operational flexibility and can be switched into and out of electricity producing mode or cycled at varying loads in response to intermittent renewable generation. Simple-cycle combustion turbines differ from NGCC units in that waste heat from the combustion turbine is not supplied to a HRSG and coupled with a steam turbine/generator. Because waste heat from the combustion turbine/generator is not utilized, SCCTs are less efficient than NGCC units and are not typically used for baseload power generation.

Although an SCCT-based power plant could be designed to provide 1,425 MW-net of dispatchable energy, SCCTs are not the best fit technology to provide intermediate and baseload capacity. Because of their comparatively lower efficiency, relative to the proposed NGCC units, SCCTs would not provide as efficient, nor as cost-effective capacity needed to achieve the purpose and need for the Proposed Action. As a result, this alternative was not selected.

2.3 Alternative Project Locations

As reflected below, Oglethorpe evaluated multiple potential site locations to identify the preferred location for the new NGCC generating facility. The primary objective was to evaluate potential sites for project-specific engineering, environmental, and socioeconomic criteria to identify the preferred location for the construction and operation of a new nominal 1,200 MW-net NGCC facility.

The following six site locations, all located within Oglethorpe's member EMC service territories, were evaluated:

- Smarr Site (Monroe County)
- Hartwell Site (Hart County)
- PS-BU-1 (Burke County)
- SC-2 (Screven County)
- Warthen Site (Washington County)
- B.C. Smith Site (Effingham County)

Non-discretionary site selection criteria included engineering, environmental, and social impact criteria that could significantly affect the constructability, successful operation, or permitting of the NGCC facility, and typically could not be addressed through practical and cost-effective engineering solutions or reasonable mitigation measures. Non-discretionary criteria included, among other things, distance to existing natural gas and transmission infrastructure; site topography, proximity to faults and seismic hazards, and existing on-site land use; and proximity to significant natural resources such as surface water features, wetlands, threatened and endangered species, and natural habitat. The application of these non-discretionary criteria resulted in eliminating three sites (Hartwell, PS-BU-1, and SC-2) from further consideration for this project.

The remaining three sites (Smarr, Warthen, and B.C. Smith) were evaluated comparatively based on engineering, environmental, and social impact criteria that can affect project development but can typically be effectively mitigated through cost-effective engineering or mitigation measures. The site evaluation was arranged into four general categories: infrastructure, utilities, and operations; site development, constructability, and geotechnical; environmental and natural resources; and land use and socioeconomics. Siting criteria included, but were not limited to, existing land use and proximity to existing natural gas and electric transmission infrastructure; water availability and wastewater management options; consideration of impacts to environmental and natural resources such as threatened & endangered species, critical habitat, surface waters and wetlands, and regional air resources; and proximity to population centers, parks, and significant historical and cultural resources.

In general, all three sites were found to be situated similarly well with respect to proximity to existing natural gas and transmission infrastructure. However, gas transportation and pipeline reservation fees vary across the sites; thus, based on distance from the gas source to the site, the Smarr Site was deemed the

preferred site location with respect to gas interconnect and annual pipeline reservation fees. The Smarr and Warthen sites were similar with respect to transmission infrastructure given their proximity to existing GTC 500 kV transmission lines. The B.C. Smith Site was considered a less preferable site with regards to transmission as it was determined that upgrades to the facility's existing 230 kV substation at the site would be needed to support the Project.

The Smarr and B.C. Smith sites were found to be situated similarly well with respect to raw water availability, as both sites are located at or close to an existing Oglethorpe power plant with an available raw water connection at the site boundary. The Warthen Site was considered a less preferable site with regards to raw water availability as the site is a greenfield site and does not have an existing water connection at the site boundary.

The Smarr and Warthen sites were similar in terms of development/construction constraints, whereas limited land available for development within the existing site boundary was identified as a potentially significant site limitation at the B.C. Smith Site. The B.C. Smith Site was also considered a less preferable site with regards to groundwater conditions and flood potential as the area east of the existing power plant at B.C. Smith is used for the facility's land application system for cooling tower blowdown water, which results in soils that may not support project development and are needed as part of the land application system. Additionally, a large portion of the southern half of the site was identified by USEPA's National Wetlands Inventory as being a regulated wetland. The potential for construction activities occurring within a floodplain was also identified as a potentially significant site limitation at the B.C. Smith Site.

The Smarr and Warthen sites were considered similarly preferable with respect to wastewater management options. Both sites have adequate space to install a septic system for sanitary waters, and the option to discharge process water via a new NPDES discharge permit. The B.C. Smith Site was considered the least preferable site with respect to wastewater management options. Although the site has an existing land application permit for cooling tower blowdown water, increasing the quantity of wastewater discharged via land application would likely require expansion of the land application system at B.C. Smith, if possible.

The Smarr and Warthen sites were found to be similarly situated with respect to environmental and natural resource criteria. The area within each site boundary that would be developed for the Project generally consists of pine plantation, agricultural timberland, and mixed deciduous forest. Based on a review of the USFWS's Information, Planning and Conservation (IPaC) Resources List, the Smarr Site overlaps the historical range of two endangered plant species (Relict Trillium and Ocmulgee Skullcap), while the Warthen Site does not overlap with any threatened or endangered species range. However, no critical habitat is located within either site boundary. The B.C. Smith Site, which is located at an existing Oglethorpe power plant, overlaps the historical range of one reptile species (Eastern Indigo Snake) listed as threatened and one flowering plant (Pondberry) listed as endangered. Although no critical habitat is located within the site boundary, the area at B.C. Smith that would be developed for the Project generally consists of mixed

deciduous forest, planted landscape, and formerly delineated forested/shrub wetlands which makes it a less preferable site with respect to environmental and natural resource criteria.

All three sites were similarly well situated with respect to air quality as all three sites are located in an area that is in compliance with all existing National Ambient Air Quality Standards (NAAQS). The Smarr Site was considered the preferable site with respect to existing ambient air quality as ambient concentrations of $PM_{2.5}$ are lower in Monroe County compared to Washington and Effingham counties. The B.C. Smith Site was considered a less preferable site with respect to proximity to a federal Class I area as the site is located approximately 60 miles north of the Wolf Island National Wilderness Area.

The Smarr and Warthen sites were considered similarly preferable site locations with respect to existing land use, land use within one mile of the site, and proximity to population centers. Both sites have adequate space to accommodate the new NGCC facility, and neither site is in close proximity to population centers or commercial/residential developments. Although the B.C. Smith Site is an existing power plant, additional land would likely have to be acquired to support construction of the NGCC (e.g., construction parking, equipment laydown areas, relocation of the existing wastewater land application system, etc.). Additionally, residential and commercial development has occurred in the vicinity of the site, resulting in B.C. Smith being considered a less preferable site with respect to existing land use.

Overall, the Smarr Site was identified as the preferred site for the new NGCC facility. The Smarr Site is located just south of an existing simple-cycle combustion turbine generating facility. The SONAT South Main interstate natural gas pipeline is located within approximately one mile of the site boundary and the exiting GTC 500 kV Scherer-Bonaire transmission line corridor is located on the western boundary of the site. The existing Monroe County public water supply system, located in close proximity to the Smarr Site, has adequate capacity to support the Proposed Action. The Smarr Site is located in an area that is currently in compliance with all NAAQS, and development of the Project at the Smarr Site would be designed to minimize or avoid impacts to significant surface water resources, wetlands, and significant environmental and cultural resources.

2.4 No Action Alternative

Under the No Action Alternative, RUS would not provide financial assistance to Oglethorpe to construct the proposed NGCC facility. As a result, Oglethorpe would be required to secure alternative financing for the Project or forego construction of the new generating units, an alternative that is not responsive to the increasing demand for clean and reliable electric power. The No Action Alternative would result in increased project financing costs which would have an adverse impact on the financial viability of the Project or require Oglethorpe to pursue higher cost options from alternative generating resources. Additionally, electric power generation needed to address the projected demand increase in Oglethorpe's member EMC service areas would be acquired by Oglethorpe or its members from one or more alternative generating resources. As such, depending on the location and type of electric power generating resource

that is used to provide additional power to respond to increased demand, the No Action Alternative could result in impacts to environmental resources, including land use, wetlands, threatened and endangered species, air quality, or greenhouse gas emissions.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter provides a description of the existing natural and human resource conditions present in the vicinity of the Project Area that may be impacted by construction and operation of the Proposed Action. Environmental studies and public information for the Project Area and the surrounding communities were referenced to inform preparation of the EA. In addition, information was obtained from preliminary engineering studies regarding the facility design to estimate air emissions and wastewater discharge from the new NGCC facility.

3.1 Land Use

3.1.1 General Land Use

Land use is defined as the way people use and develop land, including agricultural, residential, and industrial development. Many municipalities develop zoning ordinances and planning documents to control the direction of development and to keep similar land uses together.

3.1.1.1 Affected Environment

The proposed Project Area is located in eastern Monroe County, Georgia, and consists of relatively flat to gently rolling terrain. The Project Area is owned by Oglethorpe Power (Monroe County Assessor, 2025). Topography at the Project Area ranges from approximately 470 to 550 feet above mean sea level. The parcel on which the proposed NGCC facility would be located consists of a combination of pine plantation with mixed deciduous forests along stream bottoms. The Project Area is bounded to the north and east by the Smarr Energy Facility and Five Below Warehouse & Distribution Center, respectively. Undeveloped pine plantation forested land and Little Deer Creek border the Project Area to the south. The GTC Scherer-Bonaire 500 kV transmission line corridor runs along the western boundary of the Project Area. The approximate center of the Project Area is located at 32.975581° N latitude -83.845154° W longitude.

Individual parcels within the Project Area are currently shown as being zoned R-1 (Residential) and A-R (Agricultural/Rural) on the Monroe County Zoning Map (Monroe County, 2025); however, on October 3, 2024, Oglethorpe obtained approval from Monroe County to rezone the Project Area parcels to M-3 (manufacturing – heavy). A copy of the zoning change approval is provided as Attachment 1. Parcels to the north and east of the Project Area, which include the Smarr Energy Facility and Five Below Warehouse & Distribution Center, as well as parcels located south of Deer Creek are currently zoned M (Industrial District). Parcels west of the Project Area are generally zoned A-R (Monroe County Assessor, 2025). Attachment 2 shows the zoning classifications for the Project Area and adjoining parcels.

3.1.1.2 Environmental Consequences

Although the Proposed Action would result in the conversion of approximately 166 acres of land from forested pine plantation to industrial use (i.e., electric power generation), the Proposed Action is compatible with existing land use and development in the vicinity of the Project Area and consistent with Monroe County zoning and planned development in the area. Construction of the Proposed Action would be done in accordance with all existing local land use requirements and zoning restrictions and would not change the overall character of the Project Area or surrounding parcels.

3.1.1.3 Mitigation

The Proposed Action would result in approximately 166 acres being converted from forested pine plantation to industrial use. However, Monroe County has rezoned the Project Area for heavy manufacturing; therefore, no additional mitigation measures are proposed.

3.1.2 Important Farmlands

The Farmland Protection Policy Act of 1981 (FPPA) was established to minimize the extent of unnecessary and irreversible conversion of farmland to nonagricultural uses contributed by Federal programs. The regulatory goal of the FPPA was to reduce the rate and amount of modification of farmlands, forest lands, and range lands that would impair the nation's ability to produce sufficient domestic needs and export markets.

The Natural Resource Conservation Service (NRCS) defines prime farmland soils in the FPPA as soils with an adequate and dependable source for water, favorable temperatures and growing season, acceptable acidity/alkalinity level, few or no rocks, sufficient permeability for water and air, and slopes averaging zero to six percent. However, land that has been previously disturbed and land identified as an "urbanized area" cannot be classified as prime farmland and is not subject to review under the FPPA.

3.1.2.1 Affected Environment

Based on a review of information available from the USDA Web Soil Survey (USDA, 2025a), a majority of the soils located within the Project Area are classified as "not prime farmland." A few small areas, located along the north, south, and west boundary of the Project Area (approximately 4.6% of the Project Area) consist of soils classified as "farmland of statewide importance" or "prime farmland." Soil classifications within the Project Area are summarized in Table 3-1 and shown in Attachment 3.

Table 3-1. Soil Classifications

Map Unit Symbol	Map Unit Name	Approximate Acreage	Farmland Classification
CfB2	Cecil sandy clay loam, 2 to 6 percent slopes, moderately eroded	0.5	Farmland of Statewide Importance
CgC3	Cecil sandy clay loam, 6 to 10 percent slopes, severely eroded	0.7	Not Prime Farmland
CwA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	2.5	Farmland of Statewide Importance
LcB	Lloyd sandy loam, 2 to 6 percent slopes	4.7	Prime Farmland
LfB3	Lloyd sandy clay loam, 2 to 6 percent slopes, severely eroded	18.1	Not Prime Farmland
MdD3	Madison sandy clay loam, 6 to 15 percent slopes, severely eroded	100.9	Not Prime Farmland
MdE3	Madison sandy clay loam, 15 to 30 percent slopes, severely eroded	39.2	Not Prime Farmland

3.1.2.2 Environmental Consequences

The Proposed Action would result in the conversion of approximately 7.7 acres of prime or important farmland to a non-agricultural use. USDA Form AD-1006, Farmland Conversion Impact Rating, is used by federal agencies to determine, based on an objective site scoring system, whether a proposed project results in farmland conversion subject to the FPPA. This impact is based on soil characteristics, as well as site assessment criteria, such as agriculture and urban infrastructure, support services, farm size, compatibility factors, on-farm investments, and potential farm production loss to the local community and county.

Consultation with the NRCS was initiated on April 22, 2025. An NRCS Assistant State Soil Scientist assisted in the completion of Parts II through V of Form AD-1006. Based on its assessment of potential impacts to prime farmland, NRCS calculated a conversion impact rating score of 57 (see, Attachment 4). Pursuant 7 CFR §658.4(c)(2) sites receiving a total score of less than 160 need not be given further consideration for protection and no alternative sites need to be evaluated.

3.1.2.3 Mitigation

No mitigation measures are proposed for impacts to prime farmland as the Proposed Action would not result in a significant conversion of prime farmland.

3.1.3 Formally Classified Lands

Formally classified lands include properties administered either by federal, state, or local agencies or have been given special protection through formal legislative designation. These include, but are not limited to, national parks and monuments; national forests and grasslands; national historic landmarks; national wildlife refuges; wilderness areas; wild, scenic, and recreational rivers; and state parks.

3.1.3.1 Affected Environment

A review of the United States Geological Survey (USGS) Protected Areas Map (USGS, 2025a), the National Park Service (NPS) Wild & Scenic Rivers map (NPS, 2025a), and the NPS Nationwide Rivers Inventory (NPS, 2025b) did not identify any formally classified lands within or adjacent to the Project Area. The nearest formally classified land to the Project Area is the Rum Creek Wildlife Management Area, which is located approximately 3.4 miles north-northwest of the Project Area.

3.1.3.2 Environmental Consequences

Based on the distance to the nearest formally classified land, as well as topography and existing land use between the Project Area and the nearest formally classified land, the Proposed Action would not result in impacts to this resource.

3.1.3.3 Mitigation

No mitigation measures are proposed for formally classified lands as there are no anticipated impacts to this resource.

3.2 Floodplains

Encroachments on floodplains can decrease the natural flood-control capacity of these areas and can create the need for structural flood control measures to mitigate potential impacts. RUS rules require Federal agencies to avoid actions, to the extent practicable, which will result in the location of facilities in floodplains and/or affect floodplain values (7 CFR § 1784.22(m)).

3.2.1 Affected Environment

Based on a review of the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer (NFHL) Viewer, there are no floodplains within the Project Area. The floodplain for Little Deer Creek (FEMA-mapped Zone A) is located approximately 200 feet south of the Project Area. Attachment 5 provides a map of designated floodplains and regulatory floodways in the vicinity of the Project Area (FEMA, 2017).

3.2.2 Environmental Consequences

Layout of the proposed NGCC facility is constrained by perennial streams to the north and south of the Project Area. The layout of the NGCC facility avoids encroachment on the perennial streams, including Little Deer Creek, and the floodplain for Little Deer Creek (Zone A Special Flood Hazard Area). During construction, potential impacts to the floodplain for Little Deer Creek would be minimized through the use of sediment and erosion control best management practices (BMPs). Because the Project Area does not directly impact or overlap the floodplain, and indirect impacts to the floodplain would be mitigated through the use of BMPs, the Proposed Action would have negligible impacts to floodplains.

In the event that temporary or permanent development activities occur within the floodplain, Oglethorpe would be required to obtain a floodplain development permit from Monroe County to ensure that permanent development within the floodplain would not impact the base flood elevation.

3.2.3 Mitigation

The NGCC facility, and project-related construction activities, would not be located in a FEMA designated floodplain; thus, the Proposed Action would have no impacts on this resource.

In the event the Proposed Action results in temporary or permanent development activities within the Little Deer Creek floodplain, Oglethorpe will contact RUS in the event additional analysis and public notices are required and would be required to obtain a floodplain development permit for the Project. Compliance with the terms and conditions of the permit would ensure negligible impacts to the floodplain.

3.3 Wetlands and Water Resources

This section addresses wetlands; water discharges to or appropriations from surface or ground water; ground water protection programs (e.g., sole source aquifers and recharge areas); and water quality degradation from temporary construction activities. E.O. 11990, *Protection of Wetlands*, states that it is federal policy to avoid, to the extent possible, the long and short-term adverse impacts associated with the destruction or modification of wetlands, and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.

3.3.1 Affected Environment

The Project Area is located within the Upper Ocmulgee Watershed (Hydraulic Unit Code (HUC) 03070103) in Monroe County approximately 1.5 miles south of Deer Creek and just north of Little Deer Creek (USGS, 2025b). According to the National Wetland Inventory (NWI), there are freshwater forested/shrub wetland features around the perimeter of the Project Area. NWI-mapped features in proximity to the Project Area are displayed in Attachment 6. The USEPA's sole source aquifer (SSA) map does not depict the Project Area within or near a SSA (USEPA, 2025b). The Project Area is located within the Piedmont Region

crystalline-rock aquifer. The Piedmont Region crystalline-rock aquifer does not supply drinking water to the residents of Monroe County.

Terracon Consultants, Inc. (Terracon) completed a wetlands and waters delineation from May to July 2024 to identify the presence of potential jurisdictional water resources (Terracon, 2024). Terracon observed nine potentially jurisdictional wetlands and 62 potentially jurisdictional tributaries within the study area, which included an approximately 1,190-acre site comprised of parcels owned by Oglethorpe Power as shown in Terracon's Aquatic Resource Delineation Review (ARDR) Request (Attachment 7). Two perennial streams, three intermittent streams, and twelve ephemeral streams were delineated within or adjacent to the Project Area, as shown in the general site arrangement drawing (Attachment 8). In Terracon's opinion, six of these streams are potentially jurisdictional, which include the perennial and intermittent streams and one ephemeral stream that maintains a connection between a perennial and intermittent stream. However, jurisdictional status is subject to review by the US Army Corps of Engineers (USACE). The ARDR request to verify the delineation was submitted to USACE in November 2024 and a response letter was received from USACE on March 8, 2025, verifying the delineation (Attachment 13).

3.3.2 Environmental Consequences

Potential impacts to water features associated with construction of the Proposed Action would be short-term in nature and minimized through the use of sediment and erosion control BMPs. Oglethorpe would be required to obtain coverage under the applicable Georgia EPD NPDES Construction Stormwater General Permit (CSGP) for stormwater discharges associated with construction activities (EPD, 2025a). The Project-specific stormwater pollution prevention plan (SWPPP) required to obtain coverage under the construction stormwater general permit would describe the sediment and erosion control BMPs that would be implemented during construction to reduce the potential for adverse impacts to on-site and off-site surface water features.

Potential long-term impacts to water features would generally be related to the installation of a permanent entrance road to the facility and water use and discharge associated with operation of the NGCC units. Installation of the facility may also affect some ephemeral streams.

The entrance road to the NGCC facility and the inlet water pipeline are anticipated to cross one perennial stream and the facility layout overlaps some ephemeral streams as shown in Attachment 8. The facility layout avoids perennial and intermittent surface water features and the 25-foot Georgia EPD vegetative buffer for state waters, except for minor impacts to the unnamed tributary to Little Deer Creek, a perennial stream, associated with: (1) construction of the permanent entrance road and inlet water pipeline crossing; and (2) construction of the process water and stormwater discharge structure.

An existing low water crossing across the unnamed tributary to Little Deer Creek is located where the entrance road is proposed. During tree clearing, a span bridge would be used to cross the stream. During

construction and operation, a culvert would be installed to cross the stream; therefore, impacts would be limited to upgrading the stream crossing with the installation of a culvert to support the width and weight of vehicle traffic related to the Proposed Action. In addition, an approximate 8-inch diameter inlet water pipeline would be directionally bored under the unnamed tributary to Little Deer Creek. Construction of the process water and stormwater discharge structure may result in minor impacts to the unnamed tributary to Little Deer Creek and its associated 25-foot stream buffer.

Roadway drainage structures, including bridges and culverts, will be constructed in a manner exempting them from Georgia EPD stream buffer variance requirements. In addition, water lines may be exempted from Georgia EPD stream buffer variance requirements provided the crossing occurs within 25 degrees of perpendicular to the stream and does not exceed a width of disturbance of 50 feet. Oglethorpe would obtain a stream buffer variance from the Georgia EPD for the inlet water pipeline and discharge structure, to the extent it may be required based in final project design, and USACE Section 404 permit authorization for the entrance road stream crossing, inlet water pipeline, and any other stream impacts, to the extent required. The culvert for the entrance road would be designed to meet the Nationwide Permit (NWP) Regional Conditions for the Savannah District. Temporary impacts to surface water features for construction site access and permanent impacts associated with the Proposed Action would likely qualify for coverage under a USACE Section 404 NWP as impacts would be below the thresholds for an Individual Permit (IP). In the event impacts due to the Proposed Action exceed the limits for a NWP, Oglethorpe would obtain a Section 404 IP prior to commencement of construction activities.

Raw water for the proposed NGCC facility would be obtained from the Monroe County Water Department. Monroe County has an agreement with the Macon Water Authority (MWA) to use an allowance of potable water, with adequate capacity to support the NGCC facility. The long-term average flow into the plant is estimated to be about 105 gallons per minute (gpm) at ISO conditions (i.e., 59 ºF and 60% relative humidity [RH] with no evaporative cooling) and 268 gpm during summer ambient conditions (95 ºF, 45% RH with evaporative cooling). New water storage and water treatment systems (e.g., demineralization) would be installed to supply water to the evaporative coolers, HRSGs, and other processes. However, air cooled condensers would be used for the NGCC units, which eliminates the need for cooling tower makeup water, and significantly reduces potential impacts associated with withdrawing and discharging water.

Process water generated at the NGCC facility would consist of HRSG blowdown, evaporative cooler blowdown, and low volume waste streams. The NGCC facility would generate approximately 71 gpm of process water when operating at ISO conditions without evaporative cooling and approximately 110 gpm during summer ambient conditions with evaporative cooling. The preliminary plan calls for all process water to be directed to one of two onsite storage tanks. From the tanks, the process water will flow through the plant's oil-water separator, after which the process water will be sampled and tested in accordance with applicable permit requirements prior to being sent via underground piping for eventual discharge to an unnamed tributary to Little Deer Creek.

Oglethorpe anticipates that site stormwater will be directed to one of two stormwater retention ponds for temporary storage before it is sent via piping for eventual discharge to an unnamed tributary to Little Deer Creek. Process water, as well as stormwater, are currently planned to have the same discharge point to the unnamed tributary and will flow through some common piping to reach the discharge point; however, process water and stormwater are not planned to be subject to common storage. Oglethorpe will obtain an NPDES permit from EPD for its discharge of process water.

Building sanitary water would be discharged to an on-site septic system located on the north side of the facility. Oglethorpe would obtain the required construction permit from the Monroe County Health Department for installation of the septic system. On-site sewage management construction permits are only issued by the Monroe County Health Department after a site inspection that demonstrates favorable findings relative to absorption rates, soil characteristics, groundwater, and other site characteristics, as described in the Georgia Department of Public Health (DPH) Manual for On-Site Sewage Management Systems (Georgia DPH, 2019).

Permanent surface water resource impacts would be limited to the NGCC facility's process water discharge, the entrance road stream crossing, the raw water pipeline, and potentially ephemeral streams. Oglethorpe would obtain the required USACE Section 404 permit coverage for impacts to jurisdictional water resources and an NPDES permit from Georgia EPD for the process water discharge. Because surface water impacts would be subject to review and permitting, and indirect impacts would be mitigated through the use of BMPs, the Proposed Action would have minimal impacts to surface water resources.

The Proposed Action does not include new groundwater wells or groundwater withdrawals, and no SSAs or drinking water sources are located within the Project Area; therefore, the Proposed Action would not result in adverse impacts to groundwater resources.

3.3.3 Mitigation

Oglethorpe would install sediment and erosion control BMPs to comply with the applicable Georgia NPDES CSGP for discharges associated with construction activities. The Project-specific SWPPP would describe the sediment and erosion control BMPs that would be implemented during construction to reduce the potential for adverse impacts to on-site and off-site surface water features (e.g., swales and/or drainage ditches, silt fence, stabilized construction entrances, erosion control blankets, inlet protection, etc.).

Surface water impacts related to operation of the NGCC units would be mitigated by obtaining an NPDES permit and meeting all discharge limitations, monitoring requirements, reporting requirements, and other conditions included by the Georgia EPD in the permit. Compliance with the permit would ensure that the Georgia water quality standards (Georgia Rules and Regulations 391-3-6-.03) are supported, and water resources are adequately protected. Similarly, sanitary waters managed by the septic tank would be

mitigated by meeting the siting, design, and operating requirements included in the Monroe County Health Department construction permit.

Stream impacts due to the permanent entrance road crossing, the process water discharge structure, and any potential impacts to ephemeral streams due to the facility layout would be minimized by following the terms and conditions of the applicable USACE permit, and temporary impacts due to construction access would be restored to the extent possible to pre-construction contours and revegetated, as appropriate, as required by the applicable NWP or permit verification.

3.4 Coastal Resources

The Project Area is located in Monroe County, Georgia. There are no coastal resources located in the vicinity of the Project Area.

3.5 Biological Resources

Biological resources include listed threatened and endangered species (T&ES), designated critical habitat and vegetation, and other fish and wildlife species. Potential impacts to biological resources can be direct (e.g., project-related mortality) or indirect (e.g., displacement, degradation, or loss of habitat).

3.5.1 General Fish, Wildlife, and Vegetation Resources

3.5.1.1 Affected Environment

The Project Area is located in the Piedmont Level III Ecoregion and the Southern Outer Piedmont (45b) Level IV sub-ecoregion (USEPA, 2013). The majority of the Southern Outer Piedmont ecoregion is underlain by Cecil soils (Kanhapludults) and gneiss, schist, and granite rock types. Natural vegetation of the ecoregion includes loblolly-shortleaf pine, oak-hickory, and oak-pine forests. The Project consists of mixed deciduous and coniferous forests, as shown in Figure 1-3.

3.5.1.2 Environmental Consequences

Approximately 166 acres of tree clearing is expected to be required for construction of the Proposed Action, resulting in the conversion of approximately 110 acres of forested land to industrial use which would result in permanent loss of wildlife habitat (i.e., deciduous woodland). In addition, approximately 56 acres would be used for construction equipment laydown, which would be maintained, as needed, for future equipment laydown and contractor parking for outage requirements. Wildlife within the Project Area, including common wildlife species adapted to urban areas, would be displaced with construction and operation of the Proposed Action; however, large parcels of undeveloped forested areas are located adjacent south and west of the Project Area. The Project-specific SWPPP required to obtain coverage under the Georgia construction stormwater general permit would be implemented during construction to reduce the potential for adverse impacts surface waters (see, Section 3.3.2).

3.5.1.3 Mitigation

In order to mitigate possible impacts to general fish, wildlife, or vegetation resources, areas that are not needed for operation of the Proposed Action would be allowed to revegetate. Additionally, the culvert for the proposed stream crossing would be designed to meet the NWP Regional Conditions for the Savannah District, which requires culverts to be of adequate size to accommodate flows and support aquatic sites on either side of the culvert including fish movement.

3.5.2 Threatened and Endangered Species

The purpose of the Endangered Species Act (ESA) is to establish a program for conserving threatened and endangered plant and animal species and their habitats. Agencies responsible for conservation and management of T&ES include the U.S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration (NOAA) Fisheries Service, and state fish and wildlife agencies and departments of natural resources. Section 7 of the ESA requires that applicants to federal programs and federal agencies identify the presence of threatened, endangered, or candidate species affected by the Proposed Action.

3.5.2.1 Affected Environment

An official species list obtained from the USFWS IPaC system in March 2025 identified six federally listed species with potential to occur within the proposed Project Area (see, Attachment 9). Federally listed species identified in the IPaC report, as well as a description of the species habitat, the potential for habitat to occur within the Project Area, and an ESA effects determination for each species is provided in Table 3-2. In addition, an area of critical habitat for the Ocmulgee Skullcap, an herbaceous perennial plant found only in the Savannah River and Ocmulgee River watersheds, was identified as being partially within Oglethorpe's property boundary, just south of the Project Area. The Smarr NGCC facility would be developed outside of Ocmulgee Skullcap critical habitat and would not impact the two known locations of the species.

Table 3-2. Federally Listed Species with Potential to Occur within the Project Area

Species	Federal Status	Habitat	Potential Habitat Present	ESA Determination
Tricolored Bat *Perimyotis subflavus*	Proposed Endangered	Roosts in dead or live tree foliage and caves, and forages in forested landscapes and along waterways.	Yes	No Jeopardy*

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Species	Federal Status	Habitat	Potential Habitat Present	ESA Determination
Whooping Crane *Grus americana*	Experimental Population, Non-Essential	Breeds, migrates, winters and forages in a variety of habitats, including coastal marshes and estuaries, inland marshes, lakes, open ponds, shallow bays, salt marsh and sand or tidal flats, upland swales, wet meadows and rivers, or pastures and agricultural fields.	No	No Effect
Monarch Butterfly *Danaus plexippus*	Proposed Threatened	Typically inhabit fields, roadside areas, open areas, wet areas, or urban gardens, where milkweed and flowering plants are present.	Yes	No Jeopardy
Fringed Campion *Silene polypetala*	Endangered	Prefers to grow in well-drained soils, such as sandy or rocky areas, and is often found in open meadows, woodland edges, and along roadsides.	Yes	May Affect, Not Likely to Adversely Affect
Ocmulgee Skullcap *Scutellaria ocmulgee*	Endangered	Grows in moist to wet habitats, including floodplain forests, bottomlands, and wet meadows preferably with open canopies along the Ocmulgee and Savannah River watersheds.	Yes	May Affect, Not Likely to Adversely Affect
Relict Trillium *Trillium reliquum*	Endangered	Occurs in moist, well-drained soils in mixed-deciduous forests on slopes, bluffs, stream-flats, stream banks and floodplains.	Yes	May Affect, Not Likely to Adversely Affect

*When the proposed listing is finalized, this finding is anticipated to change to: May Affect, Not Likely to Adversely Affect. This determination assumes adherence to applicable tree clearing restrictions.

Terracon prepared a Threatened and Endangered Species Habitat Assessment, dated March 2025, to characterize habitat types and determine the potential occurrence of protected animal and plant species recognized as threatened or endangered within the boundaries of the Project Area and the larger parent parcel (i.e., the "Study Area"). The field surveys were conducted May through July 2024 and were completed in conformance with the ESA and Georgia's Wildflower Preservation Act and Endangered Wildlife Act.

As part of their assessment, Terracon utilized the Northern long-eared bat and Tricolored bat range-wide Determination Key (D-Key) to evaluate potential effects on the Tricolored bat. The D-Key identified a culvert that is known to be occupied by Tricolored bats within 0.25-miles of the larger Study Area; however, it should be noted that the exact location of the culvert is maintained by the USFWS. The preliminary effect determination from the D-Key resulted in a "may affect" determination for the Tricolored bat. While the study area does overlap potential bat habitat, the Proposed Action is not anticipated to significantly impact

Tricolored bat given its wide range and the availability of similarly suitable habitat across Georgia and the U.S.

Additionally, federally listed species evaluated in Terracon's assessment included the Whooping crane and Monarch butterfly. Suitable habitat for the Whooping crane does not exist within the Study Area, and the Proposed Action therefore would have no effect on this species. Potentially suitable habitat for the Monarch butterfly was identified in the utility easement and roadside areas within the Study Area; however, the potential impacts to a small area of potentially suitable habitat are considered insignificant. While potentially suitable Monarch habitat was identified, the Proposed Action is not likely to jeopardize the continued existence of this species given the habitat present is not especially unique and the species' wide range and distribution.

Results of Terracon's field survey and desktop review indicated that potentially suitable habitat is present in the study area for three federally endangered plants: the Fringed campion, Relict trillium, and Ocmulgee skullcap. Terracon concluded that targeted surveys for these federally endangered plants would likely be necessary and recommended coordination with the USFWS regarding survey timelines and methods. Terracon initiated informal consultation with the USFWS on March 24, 2025, requesting concurrence of effects determinations for the federally listed species and approval of proposed species-specific plant survey methodology for the federally endangered plant species during the spring season (see, Attachment 9). On April 17, 2025, the USFWS responded via email approving Terracon's updated plant survey area and proposed survey methods for the three federally endangered plants (see, Attachment 10).

Based on information available from the GDNR, there are five State of Georgia protected plants and animals within the Project Area's watershed and a 3-mile radius. These include three fish species, one plant species, and one mussel species (see, Attachment 9). The state listed plant species is the previously discussed federally listed Ocmulgee skullcap. Potential habitat is found to be present within the Study Area for one state listed fish, the Altamaha shiner. Suitable habitat for two fish species and the mussel species is not present within the Study Area.

3.5.2.2 Environmental Consequences

Based on information available from the USFWS IPaC report and field surveys of the Project Area, the Proposed Action may affect potential habitat for three protected plant species: the Fringed campion, Relict trillium, and Ocmulgee skullcap. Potential habitat impacts would generally be associated with a perennial stream crossing required to construct an access road to the Project Area from the north and impacts to deciduous woodland. The perennial stream is considered potentially suitable habitat for these plant species, and there are not reasonable alternative access road locations that would avoid the stream crossing. As a result, Oglethorpe completed species-specific plant surveys in coordination with the USFWS to determine the presence of these species. Surveys for the Fringed campion and Relict trillium were completed in April 2025, while a survey for the Ocmulgee skullcap was completed in June 2025. The survey reports were

provided to USFWS on July 14, 2025. USFWS responded in a section 7 consultation letter dated July 17, 2025, and recommended a determination of "may affect, not likely to adversely affect" for all three plant species. In addition, USFWS concurred with the "no effect" determination for the whooping crane and the "not likely to jeopardize" determination for tricolored bat and monarch butterfly (see, Attachment 10).

Although the Project Area does overlap potential habitat for the state listed Altamaha shiner, a perennial stream crossing for the access road would have low potential to impact Altamaha shiner given its general habitat requirements and similar available tributaries in its geographic range. Further, construction of a perennial stream crossing is not intended to harass, capture, kill, or otherwise directly cause death to this fish species; therefore, the crossing is not regulated under Georgia's species protection state laws.

3.5.2.3 Mitigation

The Threatened and Endangered Species Habitat Assessment prepared by Terracon indicates that the Proposed Action may impact potentially suitable habitat for the Fringed campion, Relict trillium, and Ocmulgee skullcap. To evaluate presence of these species within the Project Area, species-specific plant surveys were completed for the Fringed campion and Relict trillium in April 2025, and a survey for the Ocmulgee skullcap was completed in June 2025. Oglethorpe provided the results of the species-specific plant surveys to USFWS on July 14, 2025, and no listed species were observed during the surveys. Oglethorpe will implement recommendations provided in the USFWS letter dated July 17, 2025 (Attachment 10) to the extent practicable. In order to mitigate possible impacts to the Tricolored bat, Oglethorpe will adhere to appropriate tree clearing restrictions, including the avoidance of tree clearing during winter torpor season (December 15 to February 15) and pup season (May 1 to July 15).

In addition, the Proposed Action is not intended to harass, capture, or kill the state listed Altamaha shiner and therefore is not regulated under Georgia's species protection state laws and does not require additional coordination with GDNR. Given the lack of suitable habitat for other listed species, no additional mitigation measures are proposed for the identification or avoidance of protected species.

3.5.3 Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) and Migratory Bird Treaty Act (MBTA) are enforced by the USFWS and make it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, offer for sale, or purchase any bald eagle, golden eagle, or any migratory birds, or the parts, nests, and eggs of such birds except under the terms of a valid permit. The BGEPA also prohibits any activity that could cause injury to the species, including nest abandonment or a decrease in productivity.

3.5.3.1 Affected Environment

The USFWS IPaC report indicated that seven migratory bird species of conservation concern, including bald eagles, could occur within the Project Area (Attachment 9). Bald eagles typically nest in forested areas near large bodies of water, avoiding heavily developed areas when possible (Cornell Lab of Ornithology,

2023). The Project Area generally lacks suitable eagle nesting habitat, which includes tall, large diameter trees, and preferred foraging areas including, large, open expanses of water.

3.5.3.2 Environmental Consequences

GDNR monitors bald eagle nests in Georgia and works with landowners to help protect these sites (GDNR, 2025). Oglethorpe is not aware of any bald eagle nesting sites within or adjacent to the Project Area and is not aware of bald or golden eagle nesting sites having been identified by the USFWS or GDNR within the vicinity of the Project Area. Furthermore, suitable eagle nesting and foraging habitat is not present within the Project Area. Based on the lack of occurrence and the lack of suitable habitat, the Proposed Action would not result in adverse impacts to bald or golden eagles.

Potential impacts to other migratory birds would also be expected to be negligible. In Georgia, migratory birds primarily utilize the Atlantic Flyway, a flight path that runs along the coast of Georgia, during their spring and fall migrations (USFWS, 2025a). Although the Proposed Action includes the installation of HRSG stacks, these structures are not expected to pose a material risk to migratory birds due to the inland location and structure type. According to the USFWS, the biggest threat to birds are collisions with glass buildings (USFWS, 2025b). Some migratory bird species may be temporarily displaced during construction activities due to noise and tree clearing; however, these impacts would be transitory and would not significantly affect overall populations. Vegetation clearing, which could reduce available cover, nesting, and foraging habitat, would be limited to approximately 166 acres, and be managed to minimize impacts to migratory bird habitat. In addition, the Proposed Action would not result in direct harm to adult migratory birds because of their mobility and ability to avoid areas of human activity.

3.5.3.3 Mitigation

The Proposed Action would not result in adverse impacts to bald eagles due to the lack of suitable nesting and foraging habitat; therefore, no mitigation measures are proposed. In the event an active eagle nest is identified during construction of the Proposed Action, Oglethorpe would consult with the USFWS and GDNR, as appropriate, to determine an appropriate course of action. Impacts to other migratory bird species are not expected to be significant given the total area of land impacted by the Proposed Action.

3.5.4 Invasive Species

Pursuant to EO 13112, *Invasive Species* (February 3, 1999), federal agencies are required to prevent and control invasive species and minimize the impacts invasive species can cause. In addition, it is federal policy that federal agencies avoid funding actions that are likely to introduce or spread invasive species, unless the agency has determined that the benefits outweigh the potential harm and that all practicable measures to minimize the risk of harm will be taken.

3.5.4.1 Affected Environment

Invasive species are generally defined as species that are non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health (USDA, 2025b). Based on information available through the GDNR Early Detection and Distribution Mapping System (EDDMapS), approximately 96 invasive plants species have been identified and reported within Monroe County many of which are grown as ornamental plants (UGA, 2025). The Project Area largely consists of undeveloped forested land which may provide suitable habitat for invasive species.

3.5.4.2 Environmental Consequences

The Proposed Action includes clearing and grading of approximately 166 acres of land currently populated by pine plantation and mixed deciduous forest communities. Ground disturbing activities and vehicle traffic during construction could lead to the introduction of invasive plant species in the Project Area. Following construction, the Project Area would generally consist of buildings, paved impervious areas, and graveled areas which would not be suitable for invasive species communities to become established. Any areas developed as green space would be seeded using native herbaceous vegetation which would further discourage the establishment of invasive species. Overall potential for invasive species to be introduced and become established within the Project Area would be minimal.

3.5.4.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts due to invasive species.

3.6 Historic and Cultural Resources

As part of its NEPA review process, RUS considers the potential effects of the Proposed Action to cultural resources and historic properties in accordance with NHPA 54 U.S.C. 306108 (Section 106) and its implementing regulation, *Protection of Historic Properties* at 36 CFR Part 800. Section 106 of NHPA requires federal agencies to identify and assess the effects of their undertakings (e.g., project funding programs, financial assistance, etc.) on cultural resources and historic properties that are within the Proposed Action's "area of potential effect" (APE).

3.6.1 Affected Environment

Following a desktop review in May 2024, Terracon conducted a Phase I Cultural Resource Survey (CRS) in October and November 2024, to re-establish site boundaries, assess site integrity, and further evaluate National Register of Historic Places (NRHP) eligibility (Terracon, 2025). Terracon defined the Archaeological APE as the 182.6-acre survey area which encompasses the proposed Project Area. The APE for historical resources included the 182.6-acre Archaeological APE and areas within 0.5-miles of the Archaeological APE that were determined to potentially be within the viewshed of the Proposed Action (hereinafter referred to as "Historical Resources APE").

The Phase I CRS did not identify any new archaeological sites; however, three isolated finds were identified within the Archeological APE. Additionally, the six previously recorded archaeological sites located within or intersecting the Archaeological APE (identified as sites 9MO392, 9MO393, 9MO396, 9MO445, 9MO460, and 9MO461) were revisited and re-delineated in order to update their boundaries and NRHP ineligibility recommendations with the state. None of the six archaeological sites were considered eligible for NRHP inclusion.

Terracon also conducted a survey of historic-age resources (1834–1980) within the Historical Resources APE to consider impacts to historic properties within the Proposed Action viewshed. Based on the evaluation, one resource (identified as Resource 2) within the Historical Resources APE was considered eligible for listing in the NRHP, and Terracon recommended a finding of historic properties present. However, given that the Proposed Action will not materially affect the integrity of this resource, Terracon recommended a finding of no adverse effect to historic properties.

Upon review of the U.S. Department of Housing and Urban Development's (HUD) Tribal Directory Assessment Tool (TDAT), it was determined that the Alabama-Quassarte Tribal Town, Coushatta Tribe of Louisiana, Muscogee (Creek) Nation, and the Seminole Tribe of Florida are federally recognized tribes with interests in Monroe County, Georgia (HUD, 2025).

3.6.2 Environmental Consequences

Based on findings from the 2025 Phase I CRS, neither construction nor operation of the Proposed Action would result in short-term or long-term impacts to historic or cultural resources. There are no NRHP-listed resources or resources eligible for listing within the Archeological APE. The one historical property within the Historical Resources APE will not be adversely affected by the Proposed Action. Based on its review and acceptance of these recommendations, RUS made a determination of no adverse effect to historic properties and initiated consultation on July 29, 2025 with the Georgia State Historic Preservation Office (SHPO). As a result of the identification and consultation efforts, it was concluded that no historic or cultural properties will be adversely affected by the Proposed Action.

3.6.3 Mitigation

No mitigation measures are proposed as there are no anticipated impacts to historic and cultural resources. Legal requirements related to notifying the Georgia SHPO, Alabama-Quassarte Tribal Town, Coushatta Tribe of Louisiana, Muscogee (Creek) Nation, and the Seminole Tribe of Florida related to the discovery of possible cultural materials during construction will be observed; however, no such discovery is expected.

3.7 Aesthetics

Development in rural areas has the potential to result in aesthetic or visual impacts on rural residential developments and landscapes that have previously remained undisturbed. Project-related aesthetics have been assessed for impacts to visually sensitive areas or areas of high scenic value such as designated

wilderness areas, parks, recreation areas, historic sites, and wild/scenic rivers taking into consideration structure heights, existing development, and the degree of screening between the proposed project and the sensitive area or feature.

3.7.1 Affected Environment

The Proposed Action would be constructed on approximately 166-acres of currently undeveloped land located approximately 1.0 mile south of the I-75 and Rumble Road intersection. The Project Area consists of relatively flat to gently rolling terrain. Topography at the Project Area ranges from 470 to 550 feet above mean sea level. The Project Area is located just south of the GTC Transmission Warehouse facility and the existing Smarr Energy Facility, a gas-fired power plant that is owned by Smarr EMC and consists of two nominal 120-MW simple-cycle combustion turbines. The roughly 715,000 square foot Five Below Warehouse & Distribution Center is located just northeast of the Project Area.

There are no visually sensitive areas or areas of high scenic value within one mile of the Project Area. The closest park to the Project Area is Rum Creek Wildlife Management Area, located 4.2 miles northeast of the approximate center point of the Project Area. The closest roadways include I-75 and Rumble Road located within one-mile north and east of the Project Area, and U.S. Highway 41 located approximately 1.7 miles west of the Project Area. The nearest residential area is located 0.9 miles southwest of the approximate center point of the Project Area.

3.7.2 Environmental Consequences

The Proposed Action would include the construction of two (2) NGCC power blocks and ancillary buildings and structures. The tallest structures associated with the Proposed Action would be the two HRSG stacks at approximately 180 feet above ground level. Given the topography in the vicinity of the Proposed Action and existing vegetation and landscape, the HRSG stacks would likely be partially visible from Rumble Road but obscured by buildings and dense vegetation from the east, west, and south. Vegetation would screen the NGCC facility from residential area southeast of the Project Area, and given the distance and intervening topography, the HRSG stacks would not be visible from any parks, visually sensitive areas, or areas of high scenic value. The Proposed Action would have similar visibility to motorists on Rumble Road as the existing GTC Transmission Warehouse and Smarr Energy Facility. Additionally, aesthetic and visual impacts associated with construction and operation of the Proposed Action would be consistent with the aesthetic character of the surrounding area and compatible with existing development parcels that are zoned for industrial development located to the north, east, and south as indicated by the Monroe County Zoning Map (Attachment 2).

3.7.3 Mitigation

No mitigation measures are proposed as the Proposed Action is not expected to result in aesthetic or visual impacts to the surrounding community or any visually sensitive areas or areas of high scenic value.

3.8 Air Quality

Potential air quality effects can be short-term (i.e., construction-related) or long-term from stationary emission sources, increased traffic, and similar activities. In Georgia, the EPD's Air Protection Branch has primary responsibility and authority to prepare and implement Georgia's air quality management plan under the Georgia Air Quality Act (O.C.G.A. Title 12, Ch. 9). The USEPA has delegated authority to EPD to implement and enforce most of the federal Clean Air Act (CAA) programs under state statutes and rules. EPD's Rules and Regulations of the State of Georgia (GA R&R) 391-3-1 require air permits for nonexempt industrial and commercial emission sources and limit the type and quantity of air pollutants that can be released from each source. Whether and what permits may be required for a source will depend on, among other things, what pollutants the source has the potential to emit, as well as the potential mass of emissions.

3.8.1 Air Pollutants

The federal CAA requires the USEPA to set primary NAAQS to provide public health protection, and secondary NAAQS to protect plants, forests, crops, and materials from damage due to exposure to six "criteria" pollutants. The criteria pollutants include ozone (O_3), PM, CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead (Pb). Federal and state environmental agencies implement requirements of the CAA through a combination of emission standards and permitting requirements that limit air emissions from emission sources to achieve and ensure continued compliance with all applicable NAAQS. The CAA also requires the USEPA to regulate Hazardous Air Pollutants (HAPs), which can be regulated under federal National Emissions Standard for Hazardous Air Pollutants (NESHAP). In addition, EPD regulates HAPs and Toxic Air Pollutants (TAPs) through a combination of federal and state regulations. Greenhouse gases (GHGs), which include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases, currently can be regulated under federal New Source Performance Standards (NSPS) and Prevention of Significant Deterioration (PSD) permitting. (USEPA, 2025c; USEPA, 2025d).

3.8.1.1 Affected Environment

The Proposed Action is located in Monroe County, Georgia. Monroe County has been designated as being in attainment or unclassifiable with all existing NAAQS (USEPA, 2025e). The former Atlanta eight-hour ozone nonattainment area, which included Henry County located approximately 30 miles north-northwest of the Project Area, has been redesignated to attainment with an approved plan (see, 87 Fed. Reg. 62733, October 17, 2022). However, Monroe County was determined to be a contributing county to the former Atlanta ozone nonattainment area. As such, Georgia air regulations require new combustion turbines in Monroe County to meet a NO_X Reasonably Available Control Technology (RACT) emission limit of 6 parts per million (ppm) at 15% O_2 during the ozone season (defined as May 1 to September 30 annually). In addition, in February 2024, USEPA issued a final rule lowering the annual $PM_{2.5}$ NAAQS to a level of 9.0 micrograms per cubic meter ($\mu g/m^3$), and on February 7, 2025, EPD made a recommendation to USEPA that all areas of the state be designated as attainment or unclassifiable (EPD, 2025b). The nearest

nonattainment area to the Proposed Action is the Sullivan County, Tennessee SO_2 nonattainment area, which is located more than 250 miles from the Project Area.

3.8.1.2 Environmental Consequences

The construction phase of the Proposed Action would result in fugitive dust and equipment exhaust emissions from activities including clearing, grading, excavation, and construction of the combustion turbines and associated equipment and infrastructure over a 46-month period. The use of heavy equipment, including bulldozers, cranes, dump trucks, graders, and similar equipment, would generate internal combustion engine exhaust emissions. The construction phase of the Proposed Action may temporarily increase ambient concentrations of exhaust-related emissions and suspended particulate matter for short periods of time depending on the type and level of activity and prevailing weather conditions. However, these short-term emission increases would end following construction and would not meaningfully affect overall air quality.

The primary source of emissions during operation of the Proposed Action would be the proposed gas fired NGCC units. The Proposed Action would also include the installation of two (2) diesel-fired emergency generators, one (1) diesel-fired fire water pump engine, and two (2) natural gas-fired fuel gas (dew point) heaters. Fugitive emissions from the fuel handling system and on-site vehicle traffic are expected to be negligible. Annual emissions from the Proposed Action were evaluated using the potential to emit (PTE) approach for the new NGCC units and auxiliary equipment as defined in the Georgia PSD regulations in GA R&R 391-3-1-.02(7)(a)2.(i)(III). For these new emission units, the baseline actual emissions for purposes of determining the emission increase are zero; therefore, Project-related emissions increases are equal to the PTE for the new units.

Potential annual emissions associated with the Proposed Action are summarized in Table 3-3.

Table 3-3. Project-Related Potential Emissions

Pollutant	Project Total Emissions (tons/yr)
NO_X	375.68
CO	269.90
VOC	146.82
Filterable PM	200.04
Total PM_{10}	244.22
Total $PM_{2.5}$	244.22
SO_2	26.57
H_2SO_4	2.66
GHG (CO_2e)	5,225,407
Lead	4.79E-03

1. Annual emissions provided herein are preliminary and may change as a result of the air permitting process; however, any changes to annual emissions from the Proposed Action would be minimal.
2. Annual emissions from the combined-cycle units were calculated assuming 8,760 hours per year of operation at maximum nominal capacity.
3. In cases where the emissions profile of startup/shutdown operation differs from steady-state operation (NO_X, CO, and VOC) annual emissions were calculated assuming 8,718 hours per year at maximum nominal capacity plus emissions during unit startup/shutdown.
4. Emergency generator emissions estimates were calculated based on two (2) diesel generator engines with a rated output of 2,991 hp and 200 hours/year of operation.
5. Fire water pump engine emissions estimates were calculated based on a diesel engine with an output of 420 hp and 500 hours/year of operation.
6. Fuel gas heater emission estimates were calculated assuming two (2) natural gas heaters with a heat input of 7 MMBtu/hr and 8,760 hours/year of operation.
7. CO_2e is subject to PSD permitting if the emissions increase exceeds 75,000 tons/yr and the PSD major source threshold will be reached by another criteria pollutant. PSD for GHGs in terms of CO_2e can only be triggered if PSD is triggered by another PSD pollutant.

Based on project-related emission calculations summarized in Table 3-3, the Proposed Action would result in emission increases above the PSD major source threshold for multiple pollutants and above the significant emission rate for NO_X, CO, VOC, Filterable PM, PM_{10}, $PM_{2.5,}$ and GHGs (in terms of CO_2e). As such, the Proposed Action would be subject to the PSD permitting requirements at GA R&R 391-3-1-

.02(7) as a new major stationary source of emissions. PSD permitting is generally designed to limit emissions such that emissions from a new or modified source will not cause or contribute to an exceedance of a NAAQS or PSD Increment (USEPA, 2025f). In addition, PSD permitting requires installation of BACT, ambient air quality impact analysis, and public involvement in the permitting process. Georgia EPD will evaluate air quality impact modeling for the Proposed Action to confirm that air quality impacts from the proposed emission source are not expected to result in an exceedance of a NAAQS.

In addition to PSD permitting, the proposed NGCC units would be subject to the applicable federal NSPS at 40 CFR Part 60 Subpart KKKK (incorporated by reference at GA R&R 391-3-1-.02(8)). Subpart KKKK applies to stationary combustion turbines with a heat input at peak load equal to or greater than 10 MMBtu/hr that commence construction, modification, or reconstruction after February 18, 2005. Subpart KKKK also requires initial performance testing to demonstrate compliance with emission standards, as well as emissions monitoring, record keeping, and reporting requirements. The applicable Part 60 Subpart KKKK standards are described in Table 3-4.[3]

Table 3-4. Subpart KKKK Emission Limits

Pollutant	Emission Standard (each turbine)
NO_X	• 15 ppm at 15 percent oxygen (O_2) or 54 nanograms per Joule (ng/J) of useful output (0.43 lb/MWh) when operating at or above 75 percent of peak load • 96 ppm at 15 percent O_2 or 590 ng/J of useful output (4.7 lb/MWh) when operating at less than 75 percent of peak load or when operating at ambient temperatures less than 0 °F
SO_2	0.90 lb/MWh gross output, or must not burn any fuel which contains total potential sulfur emissions in excess of 0.060 lb SO_2/MMBtu heat input

The new NGCC units may also be subject to the NESHAP at 40 CFR Part 63 Subpart YYYY, which apply to stationary combustion turbines located at a major source of HAP emissions. Based on emission calculations, the NGCC facility would be classified as an area source (or minor source) of HAP emissions, meaning that total HAP emissions from the facility are below the major source thresholds. Based on emission calculations and projected utilization of the new NGCC units, the facility is expected to be classified as an area source of HAP emissions and would not be subject to the Subpart YYYY standards.

[3] On November 21, 2024, the USEPA published a proposed rule to amend Subpart KKKK to establish size-based subcategories for new, modified, and reconstructed stationary combustion turbines that recognize differences between turbines that operate at varying loads or capacity factors and those firing natural gas or non-natural gas fuels. If this rule becomes final, the proposed NGCC units will comply with the new standards in Subpart KKKKa, if and as applicable.

GHG emissions from the Proposed Action would consist primarily of direct CO_2 emissions from fuel combustion in the proposed NGCC units and associated emergency generators, fire water pump engine, and fuel gas heaters, with minor emissions of CH_4 and N_2O. As noted above, GHG emissions from the Proposed Action are currently subject to PSD permitting, including the BACT emission limitation requirement, and will be evaluated by the Georgia EPD as part of the PSD air permitting process. Based on a review of available GHG control technologies, Oglethorpe proposes efficient turbine design coupled with good combustion, operating, and maintenance practices as BACT. Efficient turbine design and good combustion, operating, and maintenance practices were determined to be the only technically feasible and commercially available GHG controls applicable to the NGCC units. In addition, exclusive use of natural gas and good combustion practices are proposed as BACT for the fuel gas heaters, and exclusive use of ultra-low sulfur diesel and limiting annual hours of operation as BACT for the emergency generators and fire pump engine (see Attachment 11).

GHG emissions from the NGCC units based on the proposed BACT are estimated to be up to 2,608,711 tons CO_2e per turbine on a 12-month rolling basis. By comparison, emissions from the Proposed Action would be no more than approximately 0.4%, and less than 0.2%, of existing power plant and industrial sector GHG emissions, respectively (see USEPA, 2025g). Furthermore, given the projected increase in demand for baseload power by Oglethorpe member EMCs, the No Action Alternative could result in greater GHG emissions than the Proposed Action depending upon the fuel, generating technology, efficiency, and reliability of technologies used to meet demand requirements.

3.8.1.3 Mitigation

Potential short-term air quality impacts associated with the construction phase of the Proposed Action would be mitigated through the implementation of fugitive dust control measures, including watering, to reduce generation of fugitive dust. In addition, all construction equipment would be maintained in accordance with manufacturer instructions to minimize excess construction equipment emissions. Potential short-term emission increases would end following construction and would not result in a change to the overall ambient air quality.

Emissions during operation of the Proposed Action would be subject to all applicable federal and state emission standards. The air pollutants for which the Proposed Action would be subject to PSD permitting for include NO_X, CO, VOC, Filterable PM, PM_{10}, and $PM_{2.5}$ and CO_2e. As such, Oglethorpe would be required to implement BACT for those pollutants and conduct ambient air quality impact modeling for NO_2, CO, PM_{10}, and $PM_{2.5}$ emissions to demonstrate that the Proposed Action would not cause or contribute to the exceedance of an applicable NAAQS or PSD Increment.

Based on a review of available emission control technologies, Oglethorpe anticipates using selective catalytic reduction (SCR) as BACT for the control of NOx emissions, oxidation catalyst as BACT for the control of CO and VOC emissions and firing low sulfur fuel (natural gas) exclusively combined with good

combustion practices as BACT to reduce the formation of PM_{10} and $PM_{2.5}$ emissions. Oglethorpe has submitted a PSD permit application to Georgia EPD seeking a Construction Permit and would apply for a Title V Operating Permit after commencement of operation for the Proposed Action. A copy of the air permit application is included as Attachment 11. Compliance with all applicable emission limits, installation of BACT controls, and ambient air quality impact modeling required as part of the air permitting process would ensure that emissions from the Proposed Action would not result in adverse long-term ambient air quality impacts.

For GHGs, the proposed emission control strategies are discussed in Section 3.8.1.2. The Proposed Action represents the most efficient and cost-effective generating technology available to achieve the Project goals and objectives. For example, hydrogen co-firing would not achieve all Project goals and objectives due to hydrogen supply limitations and inadequate hydrogen transportation, distribution, and storage infrastructure, among other issues. In addition, post-combustion carbon capture and sequestration is not available or cost-effective because CO_2 capture from a natural gas combustion exhaust stream has not been adequately demonstrated at scale, transportation infrastructure for the captured CO_2 is unavailable, and there are no identified, logistically viable geologic storage formations (let alone any that have been developed).[4]

In addition, the proposed NGCC facility would have to meet all applicable federal and state emission standards, including any applicable federal NSPS for GHG emissions.

3.9 Socioeconomics

To support the development of rural communities and provide economic opportunities for rural residents, RUS evaluates the socioeconomic status of the areas being served. This includes population or income changes and impacts on local institutions such as schools, healthcare facilities, and housing. Other factors considered are tax revenues, community cohesion and growth, property values, displacement of people or land, transportation, health and public safety, and public services or facilities. U.S. Census Bureau (USCB)

[4] Although an NSPS promulgated by USEPA in May 2024—40 CFR Part 60, Subpart TTTTa—would require certain combined cycle turbines to control GHG to CCS-equivalent levels beginning in 2032, that rule is currently being litigated. In addition, EPA published a proposed rule in the Federal Register on June 17, 2025, to repeal all GHG emission standards for fossil fuel-fired power plants. See Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units, 90 Fed. Reg. 25,752 (June 17, 2025). This proposed repeal, if finalized, would include a recission of the GHG emission standards in NSPS Subpart TTTTa as well as Subpart TTTT. While Oglethorpe may have compliance obligations under Subpart TTTTa or Subpart TTTT for this project if either or both rules remain in effect, USEPA's eight-year deferral of the purported requirement to control GHGs to CCS levels under Subpart TTTTa indicates that doing so now is not viable and that CCS therefore is not an appropriate mitigation consideration or option in the context of a NEPA EA.

data are used to determine population characteristics in the vicinity of the Proposed Action and to assess how the Proposed Action would affect people's lives with respect to socioeconomic indices.

3.9.1 Affected Environment

For this assessment, Monroe County and the census tract within which the Proposed Action would be located (Census Tract 503.02) were determined to be representative areas for analyzing socioeconomic impacts, as they define the local community's population and economic characteristics.

Population growth trends and population characteristics were assessed based on available USCB data. USCB data from 2020 reported a total population for Monroe County of 27,957 (USCB, 2020). The USCB's American Community Survey (ACS) five-year estimate for 2023 for Monroe County reported a total population of 28,919, indicating a population growth trend for the county (USCB, 2023). Recent data also show a similar trend in the populations of the City of Forsyth. Population data for Monroe County, City of Forsyth, and the Smarr Census Designated Place (CDP) are summarized in Table 3-5. Table 3-6 provides a summary of the racial and ethnic characteristics of Monroe County and Census Tract 503.02 which includes the eastern half of Smarr.

Table 3-5. Monroe County and Nearby Municipality Population Trends

Area	2010 Census	2020 Census	2023 ACS
Monroe County	26,424	27,957	28,919
City of Forsyth	3,788	4,384	4,641
Smarr CDP	NA	218	216

Source: USCB (2010, 2020, 2023)

Table 3-6. Monroe County and Census Tract Ethnic Characteristics

Race/Ethnicity	2023 ACS	
	Monroe County	Census Tract 503.02
White, alone	72.1%	83.9%
Black or African American, alone	21.6%	11.4%
American Indian or Alaska Native, alone	0.2%	0.8%
Asian, alone	1.1%	0.0%
Native Hawaiian and Other Pacific Islander, alone	0.0%	0.0%
Some other race, alone	0.1%	2.8%
Two or more races, alone	2.2%	1.9%
Hispanic or Latino	2.7%	2.0%
TOTAL	**28,919**	**5,972**

Socioeconomic indicators include the unemployment rate of the civilian labor force, median household income, and poverty rate. Socioeconomic indicators for Monroe County and Census Tract 503.02 are summarized in Table 3-7.

Table 3-7. 2023 Socioeconomic Indicators

Area	Total Civilian Labor Force	Unemployment Rate	Median Household Income	Poverty Rate
Monroe County	14,260	4.0%	$82,863	11.4%
Census Tract 503.02	3,338	1.1%	$121,077	4.2%

Source: USCB, 2023

3.9.2 Environmental Consequences

The Proposed Action would be expected to result in socioeconomic benefits such as increased employment and expansion of the County's tax base with minimal adverse socioeconomic impacts. Following construction of the Project, which would result in the creation of a significant number of temporary construction jobs and increased demand for skilled labor, the Proposed Action would continue to provide local job opportunities to the benefit of Monroe County's economic base. However, increased employment associated with the Proposed Action would not be so great as to directly stimulate unplanned population growth in the vicinity of the Project or result in the need for additional housing, schools, or utility infrastructure.

Aesthetics, ambient sound levels, and transportation and traffic, which are also components of socioeconomic impact, are discussed in Sections 3.7, 3.10, and 3.11 of this EA respectively. Local residents would not be expected to notice a change in business or economic activity, shifts in population movement or growth, or impacts on public service demands resulting from the Proposed Action.

3.9.3 Mitigation

No mitigation measures are proposed as the Proposed Action would not result in adverse socioeconomic impacts or disproportionate impacts to minority or low-income communities.

3.10 Sound

Sound is characterized by amplitude and frequency. Certain activities inherently produce sound levels or sound characteristics that have the potential to create unwanted or unpleasant sounds which is generally described as noise. Sound generated at a proposed or existing facility may be characterized as noise depending on surrounding land use and the proximity of sound receptors. When lands adjoining a proposed or existing facility contain residential, commercial, institutional, or recreational uses, sound can become a matter of concern to residents or users of adjacent lands. The perceived importance of sound depends upon the setting, the time of day, the activity creating the sound, and the sensitivity of the individual receptor.

Sensitive receptors may include parks, wildlife refuges, cultural and historic sites, residential areas, and educational, health, and religious sites.

3.10.1 Affected Environment

The Proposed Action is located in a rural area of Monroe County and is surrounded by the Smarr Energy Facility and GTC Warehouse to the north, the Five Below Warehouse & Distribution Center and I-75 to the east, and undeveloped pine plantation forested land to the south and west. Ambient sound levels at the Project Area would predominantly consist of manmade sound from existing industrial and commercial activities and traffic along I-75, as well as natural sounds from the surrounding area. The nearest sensitive receptors are approximately 10 individual residences, all of which are located over 1,000 feet from the Project Area.

3.10.2 Environmental Consequences

The Proposed Action would result in a temporary increase in sound levels in the immediate vicinity of the Project during the estimated 46-month construction phase. Sound generating activities would include operation of construction and earth moving equipment, including trucks, bulldozers, cranes, and similar equipment. However, sound generated during this phase would be transitory and mitigated by the presence of existing vegetative buffers between the construction site and potential sound receptors. Given the transitory nature of construction-related sounds, existing sound generating activities in the vicinity of the Proposed Action, and the existing vegetative buffers between the Project Area and sound receptors, sound level impacts associate with construction of the NGCC facility are not anticipated to be significant.

Sound levels associated with the operational phase of the Proposed Action would generally be related to sound generating components of the NGCC units such as the HRSG vents, exhaust diffuser, blowdown, and exhaust stack; HRSG fuel gas skid and SCR ammonia blower; ACC pumps and fans; and the steam turbine generator piping, pumps, and vents. Burns & McDonnell conducted a Sound Study for the proposed NGCC facility in January 2025 (Attachment 14). The objectives of the Sound Study were to identify any applicable regulations, measure baseline sound levels in the vicinity of the Project Area and surrounding area, and to create an acoustic model to evaluate future sound levels from the Proposed Action. Sound levels used in the study were based on conservatively high sound levels for all the major operating equipment at the proposed facility.

The State of Georgia and Monroe County do not have any numerical sound limits that would be applicable to the Proposed Action. In absence of regulatory limits, guidance from the USEPA and the American National Standards Institute (ANSI) can be used to assess potential impacts associated with the Proposed Action on the surrounding community. The Sound Study determined that all sound levels from the Proposed Action at the nearest residences are expected to be at or below the USEPA recommended sound level of 48.6 decibel (dBA) equivalent continuous sound level (L_{eq}) and ANSI S12.9 Part 4 recommended sound level of 68 dBC L_{eq}. Based on the ambient sound level measurements and model results, the Proposed

Action would not be expected to produce, or contribute to, sound levels above the USEPA and ANSI recommended levels at the nearest residential receptors (Burns and McDonnell, 2025).

3.10.3 Mitigation

Construction-related sound impacts would be mitigated as much as practical to minimize nighttime sound impacts by limiting sound-generating activities to daytime hours, depending on the time of year, and taking into consideration construction-related safety considerations. It is anticipated that any deviations from this plan would be infrequent and limited in duration.

The proposed NGCC units and ancillary equipment would be designed to meet specific sound limits during operation of the Proposed Action. For example, as currently specified, the equipment contractor would be required to ensure near-field sound from the gas turbine and steam turbine would not exceed 85 dBA at any point 1-meter feet from the equipment under normal operating conditions, and far-field sound would be limited at the site boundary by applicable code. Sound generated by operating equipment would be mitigated, as needed, by incorporating noise reduction strategies such as vent silencing equipment and acoustical insulation. Additionally, construction- and operating-sound impacts on residential receptors would be mitigated by the presence of existing vegetative buffers between active construction/operating areas and potential sound receptors.

3.11 Transportation and Traffic

Transportation impacts include increased traffic caused or exacerbated by development of the Proposed Action. Other impacts considered are the transportation of materials to or from the facility either during construction or during operation. Possible changes in transportation patterns or intensity are also evaluated.

3.11.1 Affected Environment

The approximate center point of the Project Area is located approximately 0.9 miles south of Rumble Road (south of the existing Smarr Energy Facility at 1077 Rumble Road), and approximately 0.9 miles east of I-75. The Project Area can be accessed to the north from Rumble Road via Ray Hartley Road. Rumble Road is a fully improved, paved, two-lane minor collector road with both right and left turn lanes at the entrance to Ray Hartley Road. Based on information available from the Georgia Department of Transportation (GDOT), the Annual Average Daily Traffic (AADT) count for Rumble Road in 2022 was approximately 1,400 vehicles, measured at a station located approximately one mile from the Project Area (GDOT, 2025). Rumble Road can be accessed from the east via I-75, a fully improved eight-lane interstate highway with entrance and exit ramps at Ramble Road. AADT counts along I-75 average approximately 97,000 vehicles in the vicinity of Ramble Road (GDOT, 2025). Rumble Road can be accessed from the west via U.S. Hwy 41, a fully improved two-lane U.S. highway located approximately 1.8 miles west of the Project Area. AADT counts along Highway 41 in the vicinity of Smarr, Georgia average approximately 4,940 vehicles

per day. The Project Area can be accessed from either I-75 or U.S. Hwy 41 without passing through residential developments.

The nearest railroad is the Norfolk Southern rail line located approximately 1.5 miles west of the Project Area (ARC, 2025). The closest airport is the Macon Downtown Airport located approximately 25 miles southeast of the Project Area. The Middle Georgia Regional Airport, located approximately 28 miles southeast of the site, is the closest commercial airport. The Atlanta Hartsfield-Jackson International Airport is located approximately 50 miles north of the Project Area (USEPA, 2024).

3.11.2 Environmental Consequences

Potential impacts to traffic would generally occur during construction of the Proposed Action and be related to construction workers commuting to the site. Existing roads would be used for construction access to the Project Area. The daily number of construction workers is expected to average approximately 600 during the construction phase of the Proposed Action with a peak of approximately 800-900. In addition, approximately 15 to 40 construction trucks would be expected to access the site during the construction phase; however, construction trucks would not be expected to remain on site for longer periods of time and would not enter/leave the site on a daily basis. Many of the construction workers are expected to be from the immediate and surrounding areas, including the City of Macon located approximately 18 miles southeast of the Project Area. Roads leading to the Project Area from population centers, including I-75 and U.S. Hwy 41 are fully improved and paved and are expected to handle the increased traffic during construction without modification. Construction-related traffic impacts would be transitory and limited to the approximate 46-month construction period.

Following the construction phase of the Proposed Action, traffic flow volumes and patterns would be expected to return to pre-construction levels, with the exception of new employees commuting to the facility and ingress/egress of commercial vehicles such as third-party maintenance trucks, cleaning services, and similar support services. Oglethorpe anticipates hiring approximately 30 permanent employees to operate the new facility, and commercial traffic to and from the facility during operation would be limited to approximately 2 to 5 trucks per day. As such, increased traffic from permanent employees and commercial vehicles would not be expected to result in a significant increase in overall traffic volumes or patterns.

The Proposed Action would not impact rail traffic or operations and would not impact air traffic. To promote air safety and the efficient use of air space, the FAA requires notice for any construction or alteration meeting criteria listed in 14 CFR Part 77.9. Based on the FAA's Notice Criteria Tool which provides a preliminary determination of Part 77 notice applicability, the new NGCC exhaust stacks (approximately 180 feet agl) would not require FAA notice and would not pose a hazard to aircraft navigation (FAA, 2025).

3.11.3 Mitigation

Entrances and exits for construction traffic would be designated as well as designated construction parking and equipment laydown areas. Oglethorpe would coordinate with Monroe County, as needed, to ensure the existing traffic control infrastructure can support construction of the Proposed Action and would coordinate access to the Project Area to minimize traffic impacts during construction. No traffic mitigation measures are anticipated during operation of the Proposed Action.

If applicable, Oglethorpe would submit notification of structures or construction activities (e.g., cranes) that exceed the applicable FAA Part 77 criteria, and obtain a determination of no hazard from the FAA prior to construction of the regulated structure or equipment.

3.12 Human Health and Safety

Impact indicators for human health and safety include increased electromagnetic field radiation in comparison to recommended exposure limits, potential impacts from the release of hazardous or toxic air pollutants, potential impacts from improper storage and handling of petroleum products and hazardous substances, and potential impacts from the production, storage, and disposal of solid and hazardous wastes.

3.12.1 Electromagnetic Radiation

3.12.1.1 Affected Environment

Electromagnetic radiation (EMR) consists of waves of electric and magnetic energy moving through space. EMR can range from low to high frequency, measured in hertz, and can range from low to high energy, measured in electron volts. Electromagnetic fields (EMFs) generally refer to alternating current low frequency magnetic fields that are created by electricity flowing through wires. There are two general categories of EMFs: non-ionizing and ionizing. Non-ionizing radiation is low-level radiation which is generally perceived as harmless to humans. Non-ionizing radiation can be generated by microwave ovens, computers, wireless (wi-fi) networks, cell phones, Bluetooth devices, powerlines, and magnetic resonance imaging (MRIs). Ionizing radiation is high-level radiation, which has the potential for cellular and DNA damage. Ionizing radiation can be generated by sunlight, x-rays, and some gamma rays (NIEHS, 2025). Common EMF sources include power and transmission lines, electrical panels, transformers, motors, and appliances.

3.12.1.2 Environmental Consequences

The Proposed Action does not include new off-site EMF sources that would have the potential to impact the surrounding community. Electric energy generated by the new NGCC facility would be dispatched to the existing, or upgraded, electric transmission system operated by GTC.

3.12.1.3 Mitigation

No mitigation measures are proposed as the Proposed Action would not result in new EMF sources that would have the potential to impact the surrounding community.

3.12.2 Air Quality Impacts on Human Health and Safety

3.12.2.1 Affected Environment

As described in Section 3.8.1, the federal CAA requires USEPA to set primary and secondary NAAQS for six criteria pollutants. Primary standards are designed to provide public health protection, including protecting the health of "sensitive" populations such as those with asthma, children, and the elderly. Federal and state environmental agencies implement requirements of the CAA through a combination of emission standards and permitting requirements that limit air emissions from emission sources to achieve and ensure continued compliance with all applicable NAAQS. In Georgia, CAA requirements are implemented and enforced by the Georgia EPD under state statutes and rules.

As noted in Section 3.8.1.1 the Proposed Action is located in Monroe County Georgia which has been designated as being in attainment or unclassifiable with all existing NAAQS (USEPA, 2025e).

3.12.2.2 Environmental Consequences

The Proposed Action would be subject to the PSD permitting requirements at GA R&R 391-3-1-.02(7) as new major stationary source of emissions. PSD permitting is designed to limit emissions such that emissions from a new or modified source will not cause or contribute to an exceedance of a NAAQS or PSD Increment (USEPA, 2025f).

Oglethorpe has submitted a PSD permit application to Georgia EPD to authorize construction and initial operation of the NGCC facility. The permit application included proposed BACT control technologies to limit emissions of criteria pollutants and their precursors, and ambient air quality impact modeling demonstrating that emissions from the new facility will not cause or contribute to the exceedance of a NAAQS or PSD Increment.

In addition, the permit application included a toxic impact assessment as required by Georgia regulations. The toxic impact assessment evaluated the emissions of all TAPs that may be emitted by the new NGCC facility that are listed in the Georgia EPD toxic impact assessment guidelines (EPD, 2017). TAPs were either determined to be below the Minimum Emission Rate (MER), or the modeled ambient concentrations of TAPs required to be modeled under the guidelines were below their associated Georgia Acceptable Ambient Concentrations, and therefore require no further evaluation of potential additional regulation in relation to human health or otherwise.

3.12.2.3 Mitigation

As described in Section 3.8.1.3, Oglethorpe has submitted, and would obtain, an air permit from the Georgia EPD prior to commencing construction of the Proposed Action. Emissions of criteria pollutants, and their precursors, would be controlled using BACT to ensure emissions from the NGCC facility would not cause or contribute to the exceedance of a NAAQS or PSD Increment, and air quality modeling of potential TAP emissions determined that ambient concentrations of all TAP would be below their associated Georgia acceptable concentrations. The Georgia EPD air permitting process, and resulting air pollution controls and limitations, would ensure that emissions from the NGCC facility are appropriately protective of human health and the environment, and would not result in adverse long-term ambient air quality impacts.

3.12.3 Environmental Due Diligence

3.12.3.1 Affected Environment

Environmental due diligence is the process of inquiring into the environmental condition of real property to determine the potential for contamination. In addition, the environmental condition of a property and the proposed management and operation activities that use or create these materials or wastes are evaluated to determine and manage potential effects to the environment and surrounding communities. If properly conducted, environmental due diligence proactively recognizes potential effects, as well as legal and financial vulnerabilities associated with the management of hazardous materials.

Environmental due diligence was conducted by Oglethorpe by completing a 1988 Phase I Environmental Site Assessment (ESA) and a 1988 Phase II ESA that included the Project Area. The Phase I and Phase II ESAs were performed in accordance with local practices for pre-acquisition site assessments and considered federal and state regulations governing hazardous waste that were current at the time of the investigation. Although these environmental assessments predate the American Society for Testing Materials (ASTM) standard practice for environmental site assessments (ASTM-E1527, first published in 1993), the Phase I and Phase II ESA were generally consistent with the subsequently published standard.

The July 1988 Phase I ESA conducted by S&ME Environmental Services indicated that S&ME observed no obvious signs of hazardous materials on the surface of the Project Area. However, the Phase I ESA recommended that a Phase II ESA comprised of a limited sampling and testing program be completed to verify the absences or presence of contamination from identified potential sources. Subsequently, two groundwater samples and one shallow soil sample were completed in September 1988 as part of the Phase II ESA. Results of the sampling did not identify conditions or materials in concentrations or forms that would have been considered hazardous to public health or the environment (S&ME, 1998). The Project Area has not changed ownership since the Phase I and Phase II ESAs were completed.

Based on information available from USEPA's Enforcement Compliance History Online (ECHO) database, there is no indication of a release to the environment from the handling and storage of hazardous substances

within the Project Area or proximal facilities. A copy of the ECHO database search is included as Attachment 12. Additionally, no National Priorities List (NPL) sites are listed within a one-mile radius of the Project Area or listed within Monroe County.

3.12.3.2 Environmental Consequences

Potential environmental effects associated with the Proposed Action would generally relate to the management and storage of hazardous materials, petroleum products, and solid wastes. Chemicals used to operate the NGCC facility, including water treatment and pH control chemicals, combustion turbine and steam turbine lubricants, and equipment maintenance and cleaning, and solid wastes generated during construction and operation of the Proposed Action could entail the potential for environmental effects if improperly managed or stored.

3.12.3.3 Mitigation

Solid and hazardous wastes generated during operation of the NGCC facility would be managed in accordance with all federal, state, and local regulations. Based on a review of solid wastes typically generated at natural gas combined-cycle facilities, the Proposed Action would likely be classified as a Very Small Quantity Generator (VSQG) of hazardous waste (i.e., generates 100 kg or less per month of hazardous waste or 1 kg or less per month of acutely hazardous wastes) and it is highly unlikely that more than 1,000 kg (2,200 lbs) of hazardous waste would be stored at the facility at any one time. All hazardous waste would be properly characterized, labeled, and stored on-site prior to being sent to an approved off-site treatment, storage, or disposal facility for proper disposition.

To minimize the potential for a release of petroleum products to the environment, all petroleum products, including diesel fuel, gasoline, and lubricants, would be located indoors and/or within secondary containment. In the event aboveground storage exceeds 1,320 gallons that could reasonably be expected to discharge oil into navigable waters or adjoining shorelines, Oglethorpe would be required to prepare and implement a Spill Prevention Control and Countermeasures Plan (SPCC) in accordance with 40 CFR Part 112. The SPCC plan would include secondary containment requirements to contain a spill prior to release to the environment, and identify procedures, methods, equipment, and other requirements to respond to a release.

4. SUMMARY OF MITIGATION

A summary of the proposed mitigation measures identified in the various resource sections of this EA is provided in Table 4-1.

Table 4-1. Mitigation for Proposed Action

Resource	Mitigation Measure
Land Use, Important Farmlands, and Formally Classified Lands	None
Floodplains	As currently designed, the NGCC facility, and project-related construction activities, would not impact a FEMA designated floodplain; thus, no measures would be implemented to mitigate impacts on this resource.
Wetlands and Water Resources	Oglethorpe would install sediment and erosion control BMPs to comply with the applicable Georgia NPDES CSGP for discharges associated with construction activities. The Project-specific SWPPP prepared for the CSGP would describe the sediment and erosion control BMPs that would be implemented during construction to reduce the potential for impacts to on-site and off-site surface water features. Surface water impacts related to operation of the NGCC units would be mitigated by obtaining an NPDES permit for process water discharge, and meeting all discharge limitations, monitoring requirements, and reporting requirements of the permit. Compliance with the permit would ensure that the Georgia water quality standards (Georgia Rules and Regulations 391-3-6-.03) and water resources are adequately protected. Similarly, potential impacts from the on-site sanitary waters septic system would be mitigated by meeting the siting, design, and operating requirements included in the Monroe County Health Department construction permit. Stream impacts due to the permanent entrance road crossing, inlet water pipeline, process water discharge structure, and potential impacts to ephemeral streams due to the facility layout would be mitigated by following the terms and conditions of the applicable USACE permit, and temporary impacts due to construction access would be restored to the extent possible to pre-construction contours and revegetated, as appropriate, as required by the applicable NWP or permit verification.
Coastal Resources	None

Resource	Mitigation Measure
Biological Resources	Based on information available from the USFWS IPaC report and field studies of the Project Area, the Proposed Action may impact potentially suitable habitat for three listed plant species: the Fringed campion, Relict trillium, and Ocmulgee skullcap. To evaluate presence of these species within the Project Area, species-specific plant surveys were completed for the Fringed campion and Relict trillium in April 2025, and a survey for the Ocmulgee skullcap was completed in June 2025. Oglethorpe provided the results of the species-specific plant surveys to USFWS on July 14, 2025, and no listed species were observed during the surveys. Oglethorpe will implement conservation recommendations provided in the USFWS letter dated July 17, 2025 to further minimize risk to listed plant species due to the known occurrence of Ocmulgee skullcap on the Parent Parcel to the extent practicable. Oglethorpe will adhere to appropriate tree clearing restrictions for the Tricolored bat, including the avoidance of tree clearing during winter torpor season (December 15 to February 15) and pup season (May 1 to July 15). In the event an active eagle nest is identified during construction of the Proposed Action, Oglethorpe would consult with the USFWS and GDNR, as appropriate, to determine an appropriate course of action. Impacts to other listed or proposed species, including migratory bird species, are not expected to be significant given the lack of suitable habitat and the total area of land impacted by the Proposed Action.
Cultural and Historic Resources	No mitigation measures are proposed as there are no anticipated impacts to historic and cultural resources. Legal requirements related to notifying the Georgia SHPO, Alabama-Quassarte Tribal Town, Coushatta Tribe of Louisiana, Muscogee (Creek) Nation, and the Seminole Tribe of Florida related to the discovery of possible cultural materials during construction will be observed; however, no such discovery is expected.
Aesthetics	None
Air Quality	Potential short-term air quality impacts associated with the construction phase of the Proposed Action would be mitigated through the implementation of fugitive dust control measures. Emissions during operation of the Proposed Action would be subject to all applicable federal and state emission standards. Oglethorpe has submitted an air permit application to Georgia EPD for the Proposed Action. In accordance with Georgia air quality regulations, Oglethorpe would be required to implement BACT for NO_X, CO, VOC, Filterable PM, PM_{10}, $PM_{2.5}$, and CO_2e, meet all applicable emission limits, and conduct ambient air quality impact modeling to demonstrate that the Proposed Action would not cause or contribute to the exceedance of an applicable NAAQS.
Socioeconomics	None

Environmental Assessment

Resource	Mitigation Measure
Sound	The proposed NGCC units and ancillary equipment, would be designed to meet specific sound limits during operation of the Proposed Action. For example, as currently specified, the equipment contractor would be required to ensure near-field sound from the gas turbine and steam turbine would not exceed 85 dBA at any point 1-meter from the equipment under normal operating conditions and far-field sound would be limited at the site boundary by applicable code. Sound generated by operating equipment would be mitigated, as needed, by incorporating noise reduction strategies such as vent silencing equipment and acoustical insulation. Additionally, construction- and operating-sound impacts on residential receptors would be mitigated by the presence of existing vegetative buffers between active construction/operating areas and potential sound receptors.
Transportation	Oglethorpe would coordinate with Monroe County, as needed, to ensure the existing traffic control infrastructure can support construction of the Proposed Action and would coordinate access to the Project Area to minimize traffic impacts during construction. No traffic mitigation measures are anticipated during operation of the Proposed Action. If applicable, Oglethorpe would submit notification of structures or construction activities (e.g., cranes) that exceed the applicable FAA Part 77 criteria, and obtain a determination of no hazard from the FAA prior to construction of the regulated structure or equipment if required.
Human Health and Safety	Potential ambient air impacts associated with criteria air pollutants and TAP emissions from the NGCC facility would be mitigated by the Georgia EPD air permitting process and compliance with all applicable emission control standards and limitations. Potential environmental effects associated with hazardous substances and petroleum products would be mitigated by using and storing hazardous substances and petroleum products in accordance with applicable Federal and Georgia regulations; handling, storing, and disposing of solid and hazardous wastes generated at the facility in accordance with Federal and Georgia regulations; and implementing spill prevention and control measures, if needed, as required by Federal and Georgia regulations.

5. COORDINATION, CONSULTATION, AND CORRESPONDENCE

5.1 Agency Coordination

Coordination, consultation, and correspondence with environmental regulatory or natural resource agencies is necessary to support impact assessment conclusions, and in some cases to meet statutory requirements. A summary of the agencies contacted during preparation of this EA is provided below:

- NRCS: AD-1006 Farmland Conversion Impact Rating, dated April 22, 2025 (Attachment 4).
- USACE: Aquatic Resource Delineation Review Request, dated November 25, 2024 (Attachment 7).
- USACE: Aquatic Resource Delineation Review letter from the USACE, dated March 28, 2025 (Attachment 13).
- USFWS: Request for Informal Consultation, dated March 24, 2025 (Attachment 9), email response from USFWS on approved plant surveys, dated April 17, 2025 (Attachment 10), and USFWS section 7 consultation letter, dated July 17, 2025 (Attachment 10).
- Georgia SHPO: RUS finding letter submitted to the Georgia SHPO, dated July 29, 2025.
- Georgia EPD: Pre-application meeting and PSD Air Permit Application submitted April 14, 2025 (Attachment 11).

5.2 Tribal Consultation

The following Tribes received finding letters for the Proposed Action and the final NHPA Section 106 Archaeological and Historical Reports for their review and possible comment:

- Alabama-Quassarte Tribal Town
- Coushatta Tribe of Louisiana
- Muscogee (Creek) Nation
- Seminole Tribe of Florida

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7. LIST OF PREPARERS

Table 7-1 identifies the RUS and consultant staff involved in the preparation of this EA.

Table 7-1. RUS Staff and Consultants Involved in Preparation of this EA

Name	Agency/Company	Role/Resource Specialty
Kenneth Snell	Sargent & Lundy	Senior Environmental Consultant
Claire Kwiatkowski	Sargent & Lundy	Project Associate
Marina Greenwell	Sargent & Lundy	Senior Energy Consultant
Kendall Alsina	Sargent & Lundy	Environmental Associate

ATTACHMENTS

Attachment 1. Monroe County Community Development Department, Zoning Change Approval, October 3, 2024

Attachment 2. Monroe County Tax Assessor. Zoning Map of the Project Area and Surrounding Parcels

Attachment 3. Natural Resources Conservation Service Farmland Classification Map

Attachment 4. Natural Resources Conservation Service Form AD-1006

Attachment 5. FEMA Floodplain Map

Attachment 6. National Wetland Inventory Map

Attachment 7. Terracon Aquatic Resouce Delineation Review Request

Attachment 8. General Arrangement with Delineated Water Features

Attachment 9. USFWS Request for Informal Consultation Threatened and Endangered Species Habitat Assessment

Attachment 10. USFWS Correspondence

Attachment 11. Georgia EPD Air Permit Application

Attachment 12. EPA ECHO Database Report

Attachment 13. USACE Aquatic Resource Delineation Review Letter

Attachment 14. Sound Study