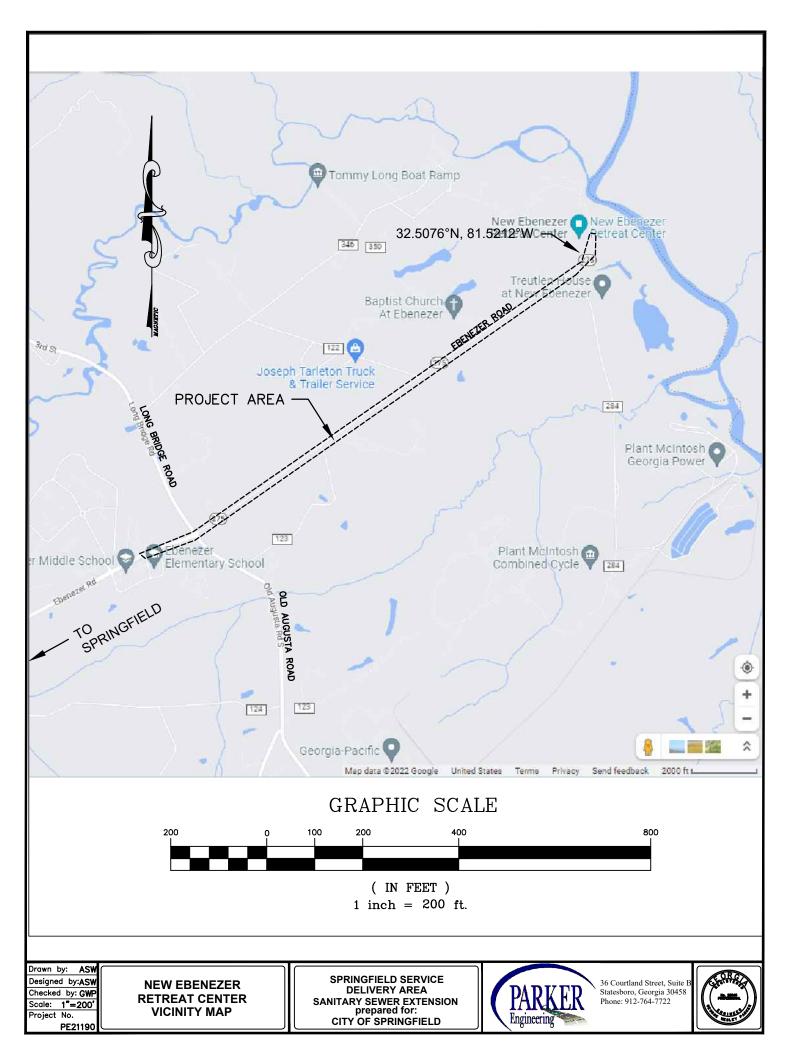


# Environmental Protection Division

# NOTICE OF NO-SIGNIFICANT IMPACT (NONSI) REQUEST WASTEWATER PROJECTS

SECTION I – FUNDING SOURCE(S):								
1.	Project name: Springfield ARPA Ebenezer Retreat Sewer Improvements							
2.	Funding:  CWSRF							
3.	Loan/Grant number: GA-0011427 (from agency administering the loan/grant)							
4.	Anticipated loan/grant amount:							
SECTION II – LOAN/GRANT APPLICANT:								
1.	Name of municipality, county, etc. requesting the loan/grant: City of Springfield							
2.	Street address/P.O. Box:	130 South Laurel Street / PO Box 1						
3.	City: Springfield	<b>4.</b> State: <i>GA</i> <b>5.</b> 31329 <b>6.</b> County: <i>Effingham</i>						
7.	Contact person:	Matt Morris						
8.	Title:	City Manager						
9.	Phone Number:	912-754-7617						
10.	Email:	mmorris@springfieldga.org						
SECTION III – PROJECT ENGINEER:								
1.	Firm name:	Parker Engineering, LLC						
2.	Street address:	36 Courtland Street Suite B						
3.	City: Statesboro	<b>4.</b> State: <i>GA</i> <b>5.</b> Zip: <i>30458</i>						
6.	Contact person:	Lindsey Bashlor						
7.	Phone number:	912-764-7722						
8.	Email:	lindsey@parker-engineering.com						
SECTION IV – DOCUMENTS NEEDED:								
1.	Provide map showing project location and including project coordinates.							
2.	Provide a SRF Planning Document							
3.	Provide proof of advertisement, public meeting minutes, and comments received during the meeting (if any)							
4.	Provide a copy of any correspondence sent and/or received from other State agencies (if any)							



**Environmental Planning Document** 

# City of Springfield Ebenezer Retreat Sewer Improvements

# Prepared for: City of Springfield Effingham County, Georgia

DECEMBER 2022

PROJECT NO.: PE21190

**Prepared by:** 



36 Courtland Street, Suite B Statesboro, Georgia 30458 Phone: 912-764-7722

# Summary, Conclusions, and Recommendations

The proposed project will include the construction of a lift station at the New Ebenezer Retreat Center (The Center) and a 2.5 milelong force main to connect The Center to the existing sewer system . The Center is located in the unincorporated area of Effingham County, but within the Springfield Service Delivery area. It is in the 31326-zip code area. Additionally the extension of sewer lines to this location will allow Springfield the potential of serving nearly two square miles of rural area properties that currently have no access to municipal sanitary services. The Center (32.5076° N, 81.5212° W) is approximately 25 miles northwest of Savannah, Georgia on Ebenezer Road.

The Center is a non-profit facility that hosts educational retreats for school children and serves as a necessary meeting facility for the local community and surrounding area. The Center has multiple buildings and the capacity to host large crowds (400 people daily and 170 overnight guests). Due to these high demands, onsite septic facilities are failing and in need of upgrade and/or expansion. Due to its remote location and distance from current sewer lines owned by the City of Springfield, the Retreat Center is unable to fully fund this project on their own.

The Springfield Waste Water Treatment Plant (WWTP) is currently being upgraded to improve Springfield's discharge water quality and ensure the continued ability to serve additional rural customers including The Center. The total cost of the service line extension toward The Center is \$1,200,000. Given Springfield's recent and projected increase in development, annexation and population growth, these upgrades are necessary and urgently needed for the City to continue to provide municipal sewer services. After the completion of the facilities upgrade, the City will then extend the sewer network to be able to serve The Center.

# <u>General</u>

**Study Purpose and Scope -** The purpose of this study is to develop a solution to reduce the risk of losing a community asset in New Ebenezer Retreat Center.

**Planning Area Description (including a map) -** Extension of sewer eastward on Ebenezer Road. Which is within the Springfield Service Delivery Area and construction of a lift station at The Center.

Project Name - City of Springfield ARPA Ebenezer Retreat Sewer Improvements

Owner and Operator of the Facilities - City of Springfield, Georgia

**Location of Facilities** - Unincorporated Effingham County, Georgia on Ebenezer Road east of Ebenezer Middle School.

# **Current Situation and Trends**

**Effluent Limitations** - The sanitary sewer would be pumped into an existing lift station at Ebenezer Middle School and then pumped to the nearby WWTP.

**Current Environmental Conditions -** This is a rural area that is in the Springfield sewer service area. The current land use is low impact it is predominantly forestry. Currently septic systems are used for wastewater treatment.

**Wastewater Flows and Population -** The 2020 Census Estimate is 2,993 persons. This project directly benefits 1 non-profit business, with the potential to serve additional residential development.

**Location and Evaluation of Treatment Facilities -** The Treatment Facility is located on Industrial Road, five and one-half miles from the proposed lift station that will pump the sanitary sewer. The WWTP is currently being upgraded to accommodate this new service.

Infiltration/Inflow - N/A

# **Future Situation**

**Population and Flow Projections** - The population of the City of Springfield in the 2020 Census Estimate was 2,993 persons which is a 7.0% growth since the 2010 census.

This new force main is sized to handle flow from the Retreat Center as well as the potential new growth along this corridor. For this design, it was assumed that there would an additional 250 single family houses in this corridor in the near future.

**Land Use-** The general land use in this area will continue to be agricultural, commercial and residential.

**Future Environment Without the Project** - Without this project the area will not have the opportunity for residential growth because of a lack of sanitary sewer service. There is also potential to lose The Center if it is unable to operate. Development in the area will continue but will be low density due to lack of sewage treatment. Future subdivisions would require large numbers of septic tanks.

# **Alternatives Considered**

**No Action -** The New Ebenezer Retreat Center currently utilizes a septic tank and soil absorption trenches to treat its wastewater. This system is unreliable for the Retreat Center, especially during large events and wet times.

**Maximum Operation of Existing Facilities -** The existing WWTP is currently being upgraded to accommodate the addition of The Center and residences that this force main could serve. Should the city want to expand the use of the force main to additional properties/new development the existing lift station at Ebenezer Middle School would need to be upgraded.

**Regional Solutions -** There is not a closer WWTP in the area that could accommodate the flow from The Center. The city of Rincon's WWTP is too far to feasibly connect to.

### Innovative and Alternative Technologies -

### **A.** Conventional Sewers

The City plans to continue with conventional sewer type construction because of its reliability. The proposed project is adding additional capacity to the existing collection system using conventional force main and lift stations based on the existing topography and groundwater elevation.

#### B. Alternative Conveyance Systems

Alternative conveyance systems such as vacuum, low pressure or grinder pump systems are not appropriate for the proposed build out flow at the Center as they will not efficiently convey this volume of wastewater over 15,000 LF to the wastewater treatment plant.

**Reclaiming and Recycling of Wastewater -** The wastewater needs to be transported to the WWTP for treatment to reuse standards.

**Evaluation of Alternatives (monetary, environmental, implementation) -** The conventional sewer alternative is not viable because of the existing topography. The Alternative conveyance systems such as vacuum, low pressure, or grinder pump systems are not appropriate for the proposed build out flow at the Center as they will not efficiently convey this volume of wastewater over 15,000 LF to the wastewater treatment plant.

**Soil Suitability for Land Application -** The lift station and force main are a means of conveyance, in which case no solid waste will be handled or disposed of until reaching the end destination, the City of Springfield WWTP.

**Energy Consumption -** Adding a lift station at the Center will result in additional energy use in return for the added sewer capacity. The new pump may utilize a variable frequency drive to reduce the energy demand.

Capital Costs - \$1,202,781.00

Operation and Maintenance Costs - \$8000/year

Present Worth Analysis - \$1,202,781.00

# Plan Selection

**Comparison of Alternatives -** A connection to the City's wastewater system is the most viable and cost-effective solution. The connection would consist of two components.

1. Construct a lift station at the Retreat Center. The proposed lift station is composed of two pumps set in the bottom of a deep concrete structure. The pumps are designed to move wastewater from the Retreat Center to a manhole currently located at the Ebenezer Middle School. From this manhole the wastewater will enter another lift station that pumps the wastewater to the WWTP.

2. Construct a Sewage Force main. This is a PVC pipe that will connect the proposed lift station at the Retreat Center to the manhole at the Ebenezer Middle School. This new force main is

sized to handle flow from the Retreat Center as well as the potential new growth along this corridor. For this design, it was assumed that there would be an additional 250 single family houses in this corridor in the near future. To accommodate future growth The Ebenezer Middle School lift station will be evaluated and upgraded as needed.

**Public Participation in Selection of Alternative -** A public meeting will be held on February 14, 2023, in Springfield.

# Reasons for Selection - TBD

# Demonstration of Best Practicable Waste Treatment Technology - N/A

# Environmental Impacts

**Compare with "No Action" Alternative -** The New Ebenezer Retreat Center currently utilizes a septic tank and soil absorption trenches to treat its wastewater. Septic systems are problematic for the environment. Saturated soil can contaminate groundwater with nitrates which are dangerous for mammals including humans. Septic system failures could also cause untreated wastewater to rise to the surface creating public health hazards, exposure to viruses, bacteria, parasites, and other disease carrying pathogens common in untreated wastewater.

Historical Properties - There is a historical property in the area but not within the project limits.

Floodplain Management - This project is not in the flood plain.

**Wetlands Protection -** There are wetlands within the project area. All construction will take place within the current right-of-way or on private property currently owned by The Center. These impacts will be minor and temporary due to construction.

**Noise -** There will be minimal noise impacts associated with construction of the storm drainage improvements. These impacts will be minor and temporary.

**Air Quality -** There will be minimal air quality impacts associated with construction of the storm drainage improvements. Fugitive dust and emissions from the construction equipment will cause a slight negative impact on air quality in the immediate area of construction. It is important to note that these impacts will be minor and temporary.

Water Supply/Water Quality (navigable waters, aquifers) (specific water body beneficially impacted; designated use of the water body; impairment if any; environmental benefit of the project to the water body) - There is no benefit or impairment of this project on water supply/water quality.

**Solid Waste Disposal -** The lift station and force main are a means of conveyance, in which case no solid waste will be handled or disposed of until reaching the end destination, the City of Springfield WWTP.

**Coastal Areas (resources and management) -** The project area is more than 20 miles from the Georgia coast and will not impact any coastal area.

Endangered Species - There are no critical habitats within the project area.

**Farmland Protection -** There will be no farmland impact within the project area. All construction will take place within the current right-of-way or on private property currently owned by The Center.

**Recreation & Open Space Potential -** There is no potential for additional recreation or open space within the project area.

Wild and Scenic Rivers (currently only the Chattooga River) - N/A

**Demographic Changes (including population projections and service life) -** This project will positively impact the population projections for the City of Springfield by offering future visitors to the Center and future residents the opportunity to have sanitary sewer service.

Displacement of Individuals - No individuals will be displaced due to this project.

**Financial Impact to the User -** The city will incur a capital cost of \$1,202,781.00 and operation and maintenance costs of \$3000/year.

**Conformance to Comprehensive Land Use Plans and Zoning -** This project has no impact on the land use plans and zoning for the City of Springfield.

**Erosion and Sedimentation -** This project will not affect the erosion and sedimentation in the area. An erosion, sedimentation, and pollution control (ES & PC) plan will be designed and submitted to EPD detailing the location of erosion control measures on site. The site will comply with the latest edition of the Manual for Erosion and Sediment Control in Georgia. Under no circumstances will sediment leave the construction site.

**Hazards, Nuisances and Site Safety -** All construction will comply with the Department of Labor, Occupational Safety and Health Administration, 29 CFR Part 1926, Subpart P, revised July 1, 1995. The city Utilities Department will be responsible for maintenance once construction is complete. The department employees responsible for maintaining the public infrastructure of the City of Springfield are trained and experienced in maintaining such facilities.

**Direct and Indirect Impacts -** Direct environmental impacts include the construction process. Since this area is undeveloped there will be no additional indirect environmental impact.

**Present and Future Conditions -** Currently this area does not have sanitary sewer service and must rely on individual septic systems. This project will alleviate the burden of those systems.

**Social and Economic Factors -** The property value in the area will be higher because of the opportunity for sanitary sewer service.

**Primary and Secondary Impacts -** The primary impacts include saving The Center from having to move to a location that provides sanitary sewer service. The secondary impacts include the denser developments due to sanitary sewer.

**Cumulative Impacts -** The cumulative impacts will encourage residential development in the area and will require an upgrade of the lift station located at the Ebenezer Middle School.

# Preliminary Design

**Description including a General Layout and Flow Schematic -** This project includes the construction of a lift station and 2.5 miles of force main to serve The Center and nearby properties along the force main.

Cost Estimates - \$1,202,781.00; See attached cost estimate.

# Arrangements for Implementation

**Governmental Jurisdictions** - The City of Springfield administrator, and engineer will be monitoring the budget and timeline milestones for each phase of the project to ensure the project stays within budget and is completed in a timely manner.

**Implementation Steps -** Construction duration reflects construction complexity and lead time required for key equipment. It will be established by the contractor. Typical durations range from 12 months to up to 18 months. Construction will be considered complete when the proposed improvements are complete and functional.

**Financial Requirements -** The City of Springfield has requested funds to assist with the completion of this \$1,202,781.00 project. The City will be using the American Rescue Funds Plan Act to complete this project.

# Development of User Charge System - N/A

# **Environmental Justice**

**EJ Communities Identification -** The 2020 median household income is reported to be \$43,750, approximately 15% (14.9%) lower than that of the state of Georgia. 16.1% of the population lives below the poverty level. This area of Effingham County is not designated as an EJ community.

Certification by Loan Applicant - No loan will be needed.

**Impacts of Project on EJ Communities -** This area of Effingham County is not designated as an EJ community.

# **Other Locations Considered - N/A**

Map of EJ Communities and Facilities- N/A

<u>Metropolitan North Georgia Water Planning District</u> Certification of Local Government Compliance with the MNGWPD Plans - N/A

# Service Delivery Strategy Compliance

Certification of Compliance of the Project with the DCA -Approved Service Delivery Strategy for the Local Government - N/A

#### **OPINIONS OF PROBABLE COST**

Since the engineer has no control over the cost of labor, materials, equipment, the Contractor's methods of determining prices, or over competitive bidding or market conditions, the Opinions of Probable Construction Cost provided herein are to be made on the basis of the engineer's experience and qualifications. These opinions represent the engineer's best judgment as a design professional familiar with the construction industry.

Ebenzer Retreat Lift Station and 6" Force Main									
Item	Description Quantity U		Units	Unit Price		Total			
1	Mobilization/General Conditions	1	LS	\$	25,000.00	\$	25,000.00		
2	15' Wetwell w/ 33.5 HP Duplex Grunfos Pumps Complete	1	LS	\$	250,000.00	\$	250,000.00		
3	6" C900 PVC Force Main	16,315	LF	\$	50.00	\$	815,750.00		
4	Fittings	1	LS	\$	15,000.00	\$	15,000.00		
5	Jack and Bore (12" steel casing w/ 6" Carrier)	100	LF	\$	400.00	\$	40,000.00		
6	Air Release Valve	4	EA	\$	6,500.00	\$	26,000.00		
7	Connect to Existing MH	1	EA	\$	2,500.00	\$	2,500.00		
8	Cut and Patch Existing Pavement	250	SY	\$	100.00	\$	25,000.00		
9	Erosion Control	1	LS	\$	35,000.00	\$	35,000.00		
10	Temporary and Permanent Grassing	1	LS	\$	15,000.00	\$	15,000.00		
TOTAL OPINION OF CONSTRUCTION COST							1,249,250.00		
Contingency, 10%							124,925.00		
Closeout/Asbuilts							15,000.00		
Engineering, Surveying, Contract Administration, Construction Observation							120,000.00		
TOTAL COST						\$	1,509,175.00		

# PUBLIC MEETING

The City of Springfield hereby gives notice that a public meeting will be held to discuss a wastewater improvement project funded by the American Rescue Plan Act (ARPA) on February 14, 2023, at 6:00pm in the City Hall. 130 South Laurel St in Springfield, Georgia.

The proposed project includes the construction of a lift station and extension of sewer force main lines a distance of two and a half miles to reach the New Ebenezer Retreat Center as a sewer customer.

The purposes of the public meeting are to:

- 1. Inform the public of the need for improvements to the City's wastewater system.
- 2. To comply with Section 391-3-6-.02 of Georgia's Water Quality Control Rules (and amendments thereto).
- 3. To encourage public involvement in the development of a plan to improve the wastewater system.

During the public meeting the City will attempt to identify public preferences for alternative methods of improving the City's wastewater facilities. These alternatives will be evaluated and included in the City's Facilities Planning and Environmental Review Document, the major planning document covering the wastewater system improvements. These documents are available for public inspection through the date of the public meeting at 130 South Laurel St in Springfield, Georgia during the normal business hours.

Your participation is encouraged and considered essential to the selection and development of the final plan to be adopted prior to its approval by the State of Georgia, Department of Natural Resources.

For additional information, contact Wesley Parker, Parker Engineering, 912-764-7722.

# City of Springfield Ebenezer Retreat Sewer Improvements

US Fish and Wildlife Letter-	Response received
GA DOT-	Sent- no response
US Army Corps of Engineers-	Response received
GA DNR WRD Non-Game Conservation Section-	Sent- no response
Historic Preservation Division-	Sent- no response