PRELIMINARY ENGINEERING REPORT AND ENVIRONMENTAL INFORMATION PLANNING DOCUMENT

FOR

SANITARY SEWER TRUNK MAIN EXTENSION TO SERVE THE CITY OF CENTERVILLE SEWER SYSTEM

FOR THE

CITY OF CENTERVILLE CITY OF CENTERVILLE, GEORGIA

NOVEMBER, 2022



104 C Gunn Road Centerville, GA 31028 (478) 953-1228 (478) 953-1248 Fax

SEC Project # 1214

TABLE OF CONTENTS

I.	INTRODUCTION	1
	1.1 Background	1
	1.2 Scope	1
II.	LOCATION & CONDITIONS	2
	2.1 General Area	2
	Figure 2.1.1- Project Location Map	3
	2.2 Project Area	
	Figure 2.2.1- Project Area Map	3
III.	EXISTING SEWER SYSTEMS	
	3.1 Water Distribution System	
	3.2 Sanitary Sewer Collection System	
	3.2.1 General	4
	Figure 3.2.1- Locations of Metering Stations	5
	3.2.2.1 Existing Wastewater Flows from Centerville	6
IV.	PROPOSED TRUNKMAIN EXTENSION	8
	4.1 Background	8
	Figure 4.1- Potential Developable Areas	
	4.2 Proposed Trunkmain Extension	
	Figure 4.2- Proposed Route of Trunkmain Extension	
	4.3 Sewer Collection Line Rehabilitation & Reconstruction	
	Figure 4.3.1- Proposed Improvements	22
V.	ALTERNATIVES AND RECOMMENDED IMPROVEMENTS	11
	5.1 Extend Sanitary Sewer Trunkmain	11
	5.2 No Action	11
VI.	DESIGN STANDARDS	12
2010/00/1		
VII.	ENGINEER'S OPINION OF PROBABLE PROJECT COST	
	7.1 Project Cost	
	Figure 7.1- Estimate of Probable Project Cost	13
VIII	. ENVIRONMENTAL INFORMATION	14
	8.1 Wetlands	14
	8.2 Floodplains/River Corridor	
	8.3 Water Supply	
	8.4 Water Resources	
	8.5 Groundwater Recharge Area	
	8.6 Storm Water	
	8.7 Wastewater	2.00
	8.8 Air Quality	15

	8.9	Solid Waste	15
	8.10	Soil Stability/Erodibility/NPDES	15
		Protected Mountains	
		Protected Species	
		Critical Habitats	
		Historical	
		Archeological	
		Parks/Recreation	
		Energy Supplies	
		Beaches	
		Dunes	
		Shoreline	
		Coastal Marshland	
		Forest Land	
		Barrier Island	
	8.24	Aquatic Life/Trout Streams	18
		Noise	
		Farm Land	
		Site Safety	
		Energy Use	
		Water Conservations	
		Coastal Zone Management Area	
		Water Withdrawal	
		System Operations	
	0.34	Wastewater Load	20
	8.33	Cross-Connection Control Program	20
	8.36	Environmental Justice	20
	8.37	Environmental Checklist	21
IX.	PROJ	ECT PLANNING	23
		Land Acquisition	
		Permitting and Approvals	
		9.2.1 Wetland Permits	
		9.2.2 Land Disturbing Permits	
		9.2.3 Department of Transportation	
		9.2.4 Georgia Department of Natural Resources	24
		9.2.5 Railroad Permit	24
	9.3	Operation and Maintenance	
		Anticipated Construction Problems.	
		Engineering Services	
X.	CON	CLUSIONS AND RECOMMENDATIONS	26
		Conclusions and Recommendations	
	10.1	Conclusions and Recommendations	20
XI.		NCIAL STATUS OF THE CITY OF CENTERVILLE	
	11.1	Conclusions and Recommendations	27

APPENDICES

Appendix A...... Environmental Information Document Comments

Appendix B.....Flood Plain Maps

I. INTRODUCTION

1.1 Background

The City of Centerville has selected and authorized Saunders Engineering Consultants, Inc., to analyze, prepare, and provide engineering technical support for Sanitary Sewer Trunk Line Extension to serve the sewer customers of the City of Centerville. Therefore, this report is presented on behalf of the City of Centerville.

1.2 Scope

This engineering report explores the need and economic feasibility of extending the truck line along the Bay Gall Creek for the City of Centerville sewer system. This report contains discussions concerning the existing sewer system characteristics, proposed sewer trunk line extensions, maps depicting the service areas with proposed improvements, and the engineer's detailed opinion of probable project cost.

This report contains comments and discussions regarding existing problems, reasonable and economic solutions, descriptions and maps of the proposed improvements and preliminary costs of construction estimates. All maps, charts, and figures are presented throughout the report for ease and convenience while reviewing.

II. LOCATION & CONDITIONS

2.1 General Area

City of Centerville is located in Houston County in central Georgia. It is bordered by Bibb County to the north, Twiggs, Bleckley, and Pulaski Counties to the east, Dooly County to the south and Macon and Peach Counties to the west. The City of Centerville is centered along Houston

Lake Road north of State Route 247 Connector and extends from the Warner Robins City limit on the east side to US 41/State Route 11 on the west. The City of Byron is located 4.91 miles to the northwest and Perry is 11.41 miles to the southwest. The City of Centerville has a population of around 8,444 residents. Please see Figure 2.1.1 for the location map.

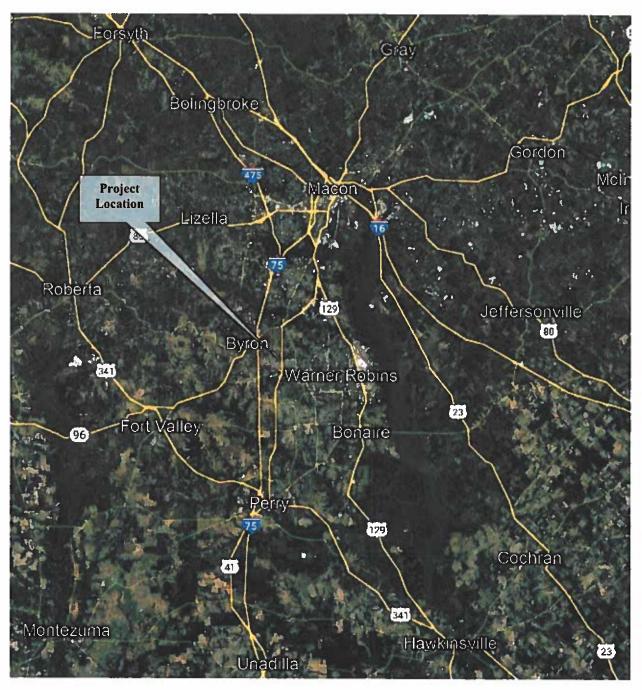
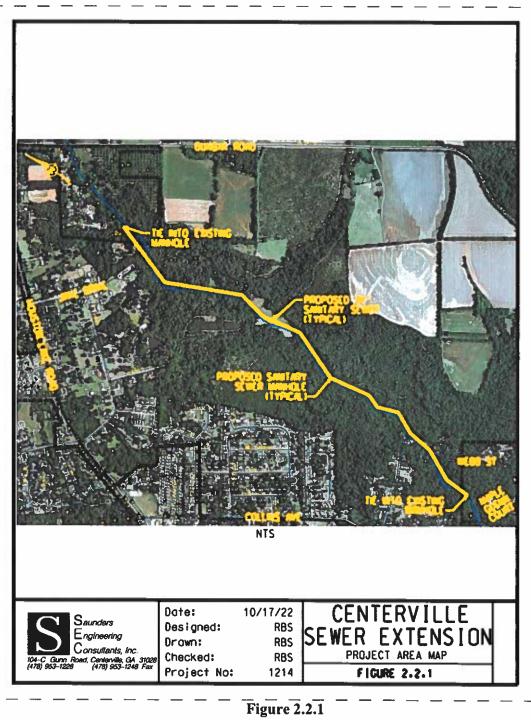


FIGURE 2.1.1 Project Location Map

2.2 **Project Area**

The project is located in the north central area of Centerville, Georgia. The project is located along the east side of Bay Gall Creek between Dunbar Road and Elberta Road. Figure 2.2.1 shows the respective area.



III. EXISTING SEWER SYSTEMS

3.1 Water Distribution System

Currently, the City of Centerville's water distribution system is in good condition and provides water service to approximately 4,500 customers. The City's distribution system consists mostly of 4", 6", 8" and 10" cast iron, galvanized, ductile iron, and PVC water mains. The City of Centerville currently has three elevated water tanks with a total storage capacity of 950,000 gallons. The City's water supply comes entirely from wells. There are three (3) wells that supply water directly to the system. Two of the wells have their own chemical feed building where chlorine and fluoride are added. The third well is piped to one of the chemical feed buildings. Each well is capable of pumping directly into the system and is controlled by the height of water in the City's three elevated water storage tanks. The City has a total groundwater withdrawal permit for 2.5 million gallons per day monthly average.

The existing water mains should not pose any major conflict with the proposed sanitary sewer improvements.

3.2 Sanitary Sewer Collection System

3.2.1 General

The existing citywide sanitary sewer system currently provides service to approximately 3550 commercial and residential customers. The sewer system provides service primarily to residents and businesses within the city limits but also has been extended to a few customers outside of the City. The collection system consists mostly of 8", 10", 12" and 24" gravity sewer mains complete with manholes and 4" service laterals. The collection system contains a total of four pump stations. The City's sewer system is generally divided into 4 systems due to topography. Each system flows into a metering station owned and operated by the City of Warner Robins. The

western portion of Centerville is served by three metering stations. The first two are located along Gunn Road and the other is along Thompson Road. The central portion of Centerville is served by a metering station along Houston Lake Road, just north of State Route 247 Connector. The northern portion of Centerville is served by a metering station along Elberta Road just west of Carl Vinson Parkway. This project flows to the Elberta Road metering station. See Figure 3.2.1 locations of metering stations.

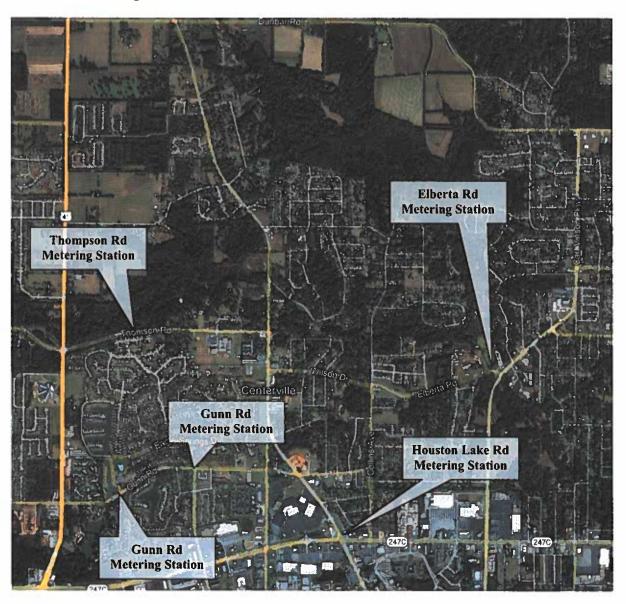


Figure 3.2.1 – Locations of Metering Stations

3.2.2 Wastewater Treatment

The City of Centerville does not have a wastewater treatment system. The City's wastewater is piped to five metering stations owned and maintained by the City of Warner Robins. The City of Warner Robins accepts and treats Centerville's wastewater at their Ocmulgee Wastewater Treatment Plant. The City of Centerville and Warner Robins are currently negotiating a new treatment contract.

3.2.2.1 Existing Wastewater Flows from Centerville

Chart 1 shows the flows for 2022, Chart 2 shows the flows for 2021, and Chart 3 shows the flows for 2020.

2022 Centerville Sewer Flows			
	Sewer Flows		
Month	1000 gallons		
2021 DEC	20,602.383		
2022 JAN	25,175.501		
2022 FEB	17,989.520		
2022 MAR	18,616.930		
2022 APR	27,233.886		
2022 MAY	26,784.203		
2022 JUN	19,356.320		
2022 JUL	40,140.444		
2022 AUG	25,410.392		
2022 SEP	15,173.271		
2022 OCT			
2022 NOV			
TOTAL	236,482.850		

Chart 1-2022 Centerville Sewer Flows

2021 Centerville Sewer Flows			
	Sewer Flows		
Month	1000 gallons		
2020 DEC	14,407.797		
2021 JAN	18,261.651		
2021 FEB	26,662.008		
2021 MAR	31,048.958		
2021 APR	21,983.563		
2021 MAY	19,492.390		
2021 JUN	14,823.272		
2021 JUL	18,875.158		
2021 AUG	20,042.632		
2021 SEP	19,525.515		
2021 OCT	40,237.211		
2021 NOV	21,286.896		
TOTAL	266,647.051		

Chart 2 – 2021 Centerville Sewer Flows

2020 Centerville Sewer Flows			
	Sewer Flows		
Month	1000 gallons		
2019 DEC	26,928.995		
2020 JAN	24,464.221		
2020 FEB	16,777.982		
2020 MAR	24,864.340		
2020 APR	30,015.674		
2020 MAY	24,205.784		
2020 JUN	21,634.827		
2020 JUL	19,158.136		
2020 AUG	15,237.210		
2020 SEP	23,542.121		
2020 OCT	19,090.158		
2020 NOV	15,304.389		
TOTAL	261,223.837		

Chart 3 – 2020 Centerville Sewer Flows

IV. PROPOSED TRUNK MAIN EXTENSION

4.1 Background

Centerville is a thriving and growing community that is limited by its geographic boundaries and sanitary sewer service. The City has expanded its available developable areas by constructing sanitary sewer pump stations. Over the last 15 years, Centerville has installed sanitary sewer mains and 2 pump stations in two existing neighborhoods that had septic tank failures. During this time, they have also installed two other pump stations to provide sanitary sewer service for three new residential subdivisions. The City is currently upgrading one of these pump stations to accommodate an additional 300 lot subdivision. Local developers and builders have recently approached the City about constructing an additional 600 residential lots and annexing those lots into the City of Centerville. The remaining developable land within Centerville is mostly located around and south Dunbar Road. However, there currently is no sanitary sewer availability in the area. The existing 24" trunk main terminates short of these developable areas. See Figure 4.1 for the potential developable area.

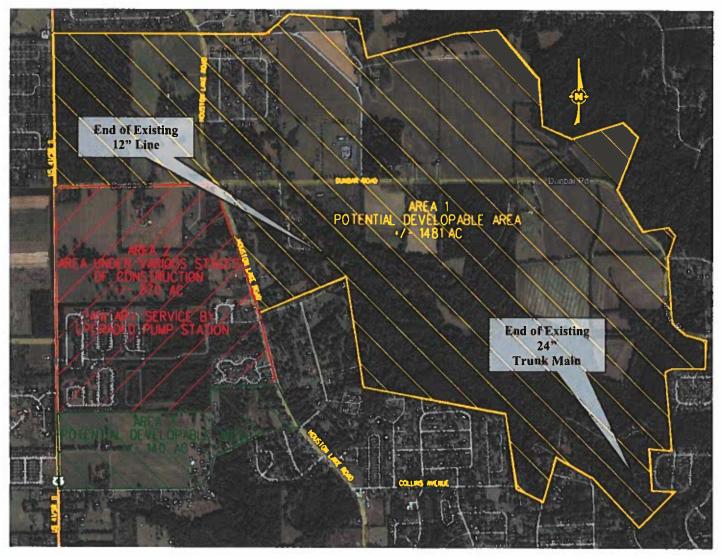


Figure 4.1 - Potential Developable Areas

4.2 Proposed Trunk Main Extension

To facilitate the future growth and expansion of the City of Centerville, the City desires to extend the sanitary sewer trunk line north along the Bay Gall Creek from the end of the existing trunk main to an existing 12" sewer line just south of Dunbar Road. Currently, this 12" sewer line extends under Dunbar Road south to an existing pump station and captures flow from Willow Stone subdivision. This sewerage flow is pumped via a 10" pvc force main alone Jane

Drive to a manhole on Houston Lake Road. Most of the flows from Area 2 shown in Figure 4.1 also ties into this 10" force main. As part of the proposed trunk main extension, the pump station and force main along Jane Drive would be removed. The pipe size of the trunk main would begin as a 16" and progressively enlarge to a 24" to accommodate the potential flows from Area 1. See Figure 4.2 for the proposed route of the trunk line extension.

PROPOSED SANTARY
SETER IMMORE
S

Figure 4.2 - Proposed Route of Trunk Main Extension

Some of the benefits of extending the trunk are outlined below:

 Allow the economic development of almost 1500 acres along the Bay Gall Creek corridor and land north of Dunbar Road.

- Eliminate the perpetual cost and maintenance of the pump station serving Willow
 Stone subdivision.
- Potentially eliminate the pump station and force main servicing Area 2 by
 extending gravity mains along Jane Drive and tying into the trunk main. This
 work could be performed at some point in the future.

V. ALTERNATIVES AND RECOMMENDED IMPROVEMENTS

5.1 Extend Sanitary Sewer Trunk Main

Extending the sanitary sewer trunk main north along the Bay Gall Creek is fundamental to the City of Centerville's plan to expand and grow. The project area is generally the only remaining large tracts of land within the City for residential development. By implementing this project, the City would make sewer available for development on approximately 1500 acres of raw land. In addition, this project would eliminate one existing pump station and provide the opportunity to eliminate an additional pump station.

5.2 No Action

The "no action" alternative is not acceptable to the City of Centerville as the City is committed to growth. This project is vital to the City's efforts.

VI. DESIGN STANDARDS

6.1 Sewer System

Sewer system improvements will be designed in accordance with Georgia EPD's Minimum Standards for Public Sewer Systems.

VII. ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

7.1 Project Cost

Provided below is the engineer's opinion of probable construction cost for the proposed sanitary sewer improvements within the targeted area. The projected costs include not only the construction costs, but also percentages for engineering fees and contingencies. Unit prices used in establishing the probable construction costs were taken from actual construction projects recently bid. These unit prices reflect materials, labor, and equipment necessary to perform the specific item to which it refers.

It should be noted that since the Engineer has no control over the cost of labor, materials, equipment, or services furnished by others; or control over the contractor's methods of determining prices; or control over competitive bidding or Market conditions; his Opinion of Probable Construction Costs provided herein are made on the basis of his experience and qualifications, and represent his best judgment as an experienced and qualified engineer familiar with the construction industry. However, the Engineer cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost prepared herein.

Estimate of Probable Project Cost Bay Gall Creek Sanitary Sewer Trunk Main Extension

SEC Project # 1214
Estimate Date: November 7, 2022

France	0	F754		Unit	
Item	Quantity	Unit	Description	Price	Extension
1		Lin Ft	Type A Silt Fence	\$5.00	\$20,000.00
2	1000	Lin Ft	Type C Silt Fence	\$6.50	\$6,500.00
3	6.7	Acre	Clearing & Grubbing	\$4,500.00	\$30,150.00
4	30	Ton	Temporary Mulch	\$750.00	\$22,500.00
5	6.7	Acre	Temporary Grassing	\$3,000.00	\$20,100.00
6	2815	Lin Ft	16" Sanitary Sewer	\$250.00	\$703,750.00
7	2895	Lin Ft	18" Sanitary Sewer	\$260.00	\$752,700.00
8	1590	Lin Ft	24" Sanitary Sewer	\$275.00	\$437,250.00
9	21	Each	Sanitary Sewer Manhole	\$7,000.00	\$147,000,00
10	1	Each	Remove Existing Lift Station	\$50,000.00	\$50,000.00
11	2	Each	Tie to Existing Manhole	\$3,500.00	\$7,000.00
12	2	Each	Stream Crossing	\$13,500.00	\$27,000.00
13	6.7	Acre	Permanent Grassing	\$4,000.00	\$26,800.00
			Sub Total Co	nstruction	\$2,250,750.00
			15%	Contengency	\$337,612.50
				Easements	\$35,000.00
				Engineering	\$288,569.88
L			Total Probable Estimated P	roject Cost	\$2,911,932.38

This estimate was calculated using available information including City of Centerville GIS, aerial photography, etc. No surveying or engineering has been performed at this time. Costs are subject to change due to design, material price fluctuations, inflation, and unforseen field conditions.

Figure 7.1 – Estimate of Probable Project Cost

VIII. ENVIRONMENTAL INFORMATION

8.1 Wetlands

Any wetlands that may be affected by the sanitary sewer rehabilitation should be covered under the United States Army Corp of Engineer Nation Wide Permits. This eliminates the need for an individual, job specific wetland permit. NO wetlands have been identified; however, many sanitary sewer easements need to be cleared.

8.2 Floodplains/River Corridor

Based on the Flood Insurance Rate Map there is a special flood hazard along the Bay Gall Creek with established flood elevations. Maps of these areas are included in the Appendix. Every effort will be made to construct the trunk main outside of the 100-year floodplain. However, any manholes within the floodplain will be bolted and/or rims raised above the 100-year flood elevation.

8.3 Water Supply

The water supply will not be adversely affected by proposed improvements. The water supply is adequate to serve all of City of Centerville.

8.4 Water Resources

The construction of the sanitary sewer extension will not affect adjacent water resources including the Bay Gall Creek or the Ocmulgee River

8.5 Groundwater Recharge Area

The proposed will not result in any disturbance to the groundwater recharge area.

8.6 Storm Water

The storm water drainage system within the project area should not be adversely affected by the construction. Any disturbed areas that may be affected by construction will be graded and grassed to previous or better conditions as part of the sedimentation and erosion control requirements.

8.7 Wastewater

Based on the area served, the proposed project could generate up to an additional 1.75mgd sewage flow.

8.8 Air Quality

The air quality will not be affected by the proposed project, thereby not requiring a Georgia

Department of Natural Resources Air Quality Permit.

8.9 Solid Waste

The proposed project should generate no additional solid waste material.

8.10 Soil Stability/Erodibility/N.P.D.E.S.

A Land Disturbing Activity Permit must be applied for from City of Centerville before the commencement of construction. EPD is the local issuing authority for the City of Centerville. Erosion control measures will be maintained at all time. Additional erosion and sediment control will be installed if deemed necessary by onsite inspection as construction activities progress. Sediment control barriers will be monitored and the excess sediment will be spread on site. Sediment and erosion control measures will remain in place and be maintained until the disturbed areas are stabilized.

All grading and excavation will be scheduled so as to minimize the exposure of the bare soils to erosive elements. The disturbed areas will be grassed immediately to prevent erosion in areas of concentrated water flows. Sediment barriers, such as hay bales and silt fence, will also be installed in areas of concentrated water flows. The sediment barriers, constructed of approved materials, will be constructed along the perimeter of the construction site, down slope of all construction activities, and at all drainage inlets. A Sedimentation and Soil Erosion Control Plan will be engineered and implemented for the proposed project. The design will conform to and work will be performed in accordance with the publication entitled *Manual for Erosion and Sediment Control in Georgia*, the project specifications, and the project details.

8.11 Protected Mountains

Not applicable to this project.

8.12 Protected Species

Saunders Engineering will make a written request to the Fish and Wildlife Division of the United States Department of the Interior to provide information regarding any State or Federally listed threatened and endangered species or any other important State natural resources that may occur in the project area. As soon as comments are received from Fish and Wildlife, they will be made available to all necessary parties. If advised by the Fish and Wildlife Service that endangered or potentially endangered species may occur within the area of potential affect, qualified personnel will conduct any necessary surveys with appropriate expertise in conducting these type surveys. Results of the surveys will be forwarded to the Fish and Wildlife Service. Any mitigation required to protect the species will be made a part of the project.

8.13 Critical Habitats

As stated above, Saunders Engineering, will make a written request to the Fish and Wildlife Division of the United States Department of the Interior to provide information regarding any State or Federally listed threatened and endangered species or any other important State natural resources that may occur in the project area. If it is determined that there is/are critical habitats in the area of construction, any mitigation required to protect the critical habitats will be made a part of the project.

8.14 Historical

Saunders Engineering will make a written request, as outlined in the SRF-EID guidelines to the Historic Preservation Division (HPD) of the Georgia Department of Natural Resources (GaDNR) to provide information regarding buildings/areas that are listed on or eligible for listing on the National Register of Historic Places. As soon as comments are received from the HPD, they will be made available to all necessary parties. Should the HPD find any resources listed on or available to be listed on the National Historic Registry that may require mitigation as a result of the construction of the sewer system improvements, City of Centerville will enter into any mitigation required as a part of the project.

8.15 Archeological

As stated above, Saunders Engineering will make a written request to HPD for conformance of this project with Section 106 of the National Historic Preservation Act. If it is found by HPD that there are archeological remains in or near the area of the proposed construction of the sewer system improvements, City of Centerville will enter into any mitigation required as a part of the project.

8.16 Parks/Recreation

Not applicable to this project.

8.17 Energy Supplies

Not applicable to this project.

8.18 Beaches

Not applicable to this project.

8.19 Dunes

Not applicable to this project.

8.20 Shoreline

Not applicable to this project.

8.21 Coastal Marshlands

Not applicable to this project.

8.22 Forest Land

Approximately 5 acres of forestlands will be affected by the construction of the sanitary sewer improvements.

8.23 Barrier Island

Not applicable to this project.

8.24 Aquatic Life/Trout Streams

Not applicable to this project.

8.25 Noise

The proposed installation of the sewer system improvements will cause noise levels to be louder than normal, due to the construction equipment. However, noise levels will return to normal at the completion of the project.

8.26 Farm Land

No farmland will be affected by the construction of the proposed sewer system improvements.

8.27 Site Safety

All rules and regulations of the Occupational Safety and Health Administration (OSHA) will be followed at all times during the construction of the project to ensure the safety and well being of the work force and the surrounding residents.

8.28 Energy Use

The construction of the proposed sewer system improvements will reduce energy usage as the project will remove one existing sanitary lift station.

8.29 Water Conservation

City of Centerville, as a municipal water provider, currently practices water conservation in accordance with the GaDNR-EPD rules and regulations. The construction of the sewer system improvements will not adversely impact water conservation.

8.30 Coastal Zone Management Area

Not applicable to this project.

8.31 Water Withdrawal

City of Centerville, as a municipal water provider licensed in the State of Georgia, withdraws groundwater through three (3) permitted deep wells.

8.32 System Operations

As stated above, City of Centerville already has a permit to operate a Public Water System.

8.33 Wastewater Load

As stated earlier, based on the area served, the proposed project could generate up to an additional 1.75mgd sewage flow.

8.34 Cross-Connection Control Program

City of Centerville already has a cross-connection control program in place.

8.35 Environmental Justice

The proposed project will not directly impact minority and/or low income populations. The improvement proposed in this report will directly impact customers only in the City of Centerville.

8.36 Environmental Checklist

A list of potential environmental impacts is evaluated below.

Area/Category	Is Area Affected?		If Affected, How Severe?			ere?	
	No	Yes	Unknown	Minor	Medium	Major	Unknown
1. Wetlands	X						
Flood Plain/River Corridor		X		Х			
3. Water Supply	X						
4. Water Resource	X						
Groundwater Recharge Area	X						
6. Storm Water	X						
7. Wastewater	X						
8. Air Quality	X		-				
9. Solid Waste	X			·			
10. Soil Stability/ Erodibility		X		X			
11. Protected Mountains	X						
12. Protected Species	X						
13. Critical Habitats	X						
14. Historical	X						
15. Archaeology	X						
16. Parks & Recreation	X						
17. Energy Supplies		X		X			
18. Beaches	X						

Continued on next page

Area/Category	Is Area Affected?		If Affected, How Severe?				
	No	Yes	Unknown	Minor	Medium	Major	Unknown
19. Dunes	X						
20. Shoreline	X						
21. Estuary	X						
22. Forest Land		X		X	_		
23. Barrier Islands	X						
24. Aquatic Life/ Trout Streams	х						
25. Noise		X		X			
26. Farm Land	X						
27. Site Safety	X						
28. Energy Use		X		X			
29. Water Conservation	X						
30. Coastal Zone Management Area	X						
31. Water Withdrawal	X			X			
32. System Operation		X		X			
33. Wastewater Load		X		X			
34. Cross-Connection Control	х						
35. Environmental Justice		X		X			

IX. PROJECT PLANNING

9.1 Land Acquisition

Easement acquisition will be required for this project.

9.2 Permitting and Approvals

9.2.1 Wetland Permits

As stated earlier, no individual wetland permit will be required for the proposed project. The United States Army Corp of Engineers Nationwide Permit should cover all aspects of construction associated with the installation of the water mains. Stream crossings will be accomplished by directional drilling. We expect to impact no stream or wetland areas.

9.2.2 Land Disturbing Permits

A Land Disturbing Activity Permit and the N.P.D.E.S. Permit will need to be acquired from City of Centerville before construction can begin. It should be noted, that before the Land Disturbing Activity Permit is approved, the Soil and Water Conservation Commission will review the Sedimentation and Soil Erosion Control Plan for compliance with local, state, and federal regulations. Their approval is included with the issuance of the Land Disturbance Activity Permit in the form of Report of Technical Review. City of Centerville is in the Ocmulgee River Soil and Water Conservation District.

9.2.3 Department of Transportation

The Georgia Department of Transportation (GDOT) will require permits for any work done within the GDOT right-of-way. No GDOT permits will be required for this project.

9.2.4 Georgia Department of Natural Resources

Before the construction of these improvements in the State of Georgia, EPD must review and approve the construction plans and technical specifications of the project.

9.2.5 Railroad Permit

No railroad permits are needed for this project.

9.3 Operation and Maintenance

There will be some increase in operation and maintenance associated with this project. The new pump stations will need to be checked daily to maintain proper working order. The City has one (1) licensed operator who oversees their existing sewer system. Billing will be provided through their existing billing software.

9.4 Anticipated Construction Problems

There are no anticipated construction problems associated with the proposed sewer system improvements. Wet weather could delay construction activities. The construction should be scheduled during dry weather months, if feasible.

9.5 Engineering Services

The following is a list of anticipated engineering services that will be required for the sewer system improvements:

- Topographic Surveys.
- Engineering Design.
- Land Disturbing Activities Permits.

- Sedimentation and Soil Erosion Control Permit.
- NPDES Permit.
- Public Hearings Appearances.
- Construction Phase Services.

X. CONCLUSIONS AND RECOMMENDATIONS

10.0 Conclusions and Recommendations

Saunders Engineering Consultants, Inc., has completed its preliminary study of the proposed sanitary sewer trunk main extension for the City of Centerville sewer system. The determination is that the area has a critical need for extending the trunk main and the extension is recommended within this report. This improvement would ensure a safe and reliable transportation system of wastewater to the City of Warner Robins for treatment.

A description of the existing conditions within the system, along with recommended improvements, has been provided herein. The Engineer's Opinion of Probable Construction Cost has also been developed and included for review. Maps showing the target area with existing conditions and proposed improvements have been included in this report.

Saunders Engineering Consultants, Inc., recommends that the City of Centerville approve this engineering report and secure the necessary funding for construction of the proposed sewer system improvements. Funding from the GEFA-SRF Program should be sought after for this project.

XI. FINANCIAL STATUS OF THE CITY OF CENTERVILLE

11.1 FINANCIAL STATUS CITY OF CENTERVILLE

The City of Centerville's Governing Authority continues to exercise sound fiscal and operational responsibility. The City's current debt consists of an installment sale agreement with Georgia Municipal Association for the purpose of constructing a new fire station. GMA has agreed to finance and assign the agreement to Synovus bank. The original loan amount was \$4,350,000 at an interest rate of 1.99%. The balance on this loan as of August 2022 is \$2,391,671. This is a SPLOST Project and 100% of the loan is expected to be repaid with SPLOST proceeds.

As of September 2022, unemployment rate for the Middle Georgia Region was 2.8%.

Operating revenues and expenses for the June 30, 2022 year end for the Water & Sewer fund were \$2,425,555 and \$2,216115, respectively, with a net "transfer in" of \$43,608 resulting in a net increase in net position of \$253,048. Total operating revenues and expenses for the City's Enterprise funds for the June 30, 2022 year end were \$3,996,691 and \$3,357,223, respectively, with a net "transfer out" of \$241,543 and a net increase in net position of \$398,106. This increase of net position does account for depreciation expense of \$224,180.

Current number of customers provided water and sewer service is 4,500 and 3,550.

Average Residential Water Bill- usage of 6,000 gallons is:

0-2000 gallons	12.38
2000-6000 gallons at 2.39 per gallon	9.56
	21.94
Average Residential Sewer Bill-usage of 6,000 gallons is:	
0-2,000 gallons	14.92
2,000-6,000 gallons (1.53 per gallon)	<u>6.12</u>
	21.04
Average Residential Sanitation bill is:	18.00
Average Residential Stormwater Utility Bill is:	4.25
Total Average Monthly Utility Bill	<u>\$65.23</u>

City of Centerville's median household income is \$59,435, with an average monthly utility bill of \$65.23. The annual utility bill is 1.32% of Centerville annual median income. Of this amount water accounts for an average bill of 21.94 monthly or \$259.68 annually; and sewer accounts for an average bill of \$21.04 monthly or \$252.48 annually, each of which is less than ½ of 1% of median household income.

This is in comparison to the median water & sewer bill of \$70.45 per month per the GEFA 2022 Dashboard. Centerville's average monthly water and sewer bill for usage of 6000 gallons is \$42.98 or 61% of the median water/sewer bill per the GEFA dashboard. Centerville rate schedule attached.

Construction of the sanitary sewer main will provide clean drinking water to existing and future residents by eliminating the seeping of contaminates into the ground water. This sanitary sewer trunk main will tie into the existing manhole below Webb Street on the Bay Gall and tie to the lift station at Willow Stone Subdivision south of Dunbar Road. New customers in those areas

are projected to be 300 within the next (3 years). Projected new development connecting to the Bay Gall accounts for an additional 400-600 customers in the next 4-8 years. This will bring to the community much needed housing.

Projected revenues generated in the short term will be \$856,730 and \$1,713,460 in the long term. This is inclusive of utility fees and charges at the current rates and property taxes at the current millage rate.



2022 GA Water and Wastewater Rates Dashboard Rates as of January 1, 2022 Dashboard updated: March 31, 2022





Centerville **Rates Comparison** Characteristics Affordability System and Community Info **Utility Owner** Ownership type Municipality **Primary County** Houston Primary service area Centerville city Date Rates Effective 06/14/2019 O Water O Sewer Water + Sewer Select comparison group: All Utilities Centerville city Median for all utilities in survey Statewide Stats **Number of Systems** 363 Est. Number of Connections 3,973 1,800 Est. Service Population 4,776 **Operating Revenue** 1,708,779 2,318,054 Operating Expense 2,070,377 1,606,294 Census Year 2019 2019 Average Household Size 2.67 2.57 2.71 Median Household Income 59,435 39,431 \$55,679 11.73 21.86 **Poverty Rate** 16.04%

Copyright (c) 2022 Environmental Finance Center at the University of North Carolina, Chapel Hill. Please select a utility above to view current Georgia rates survey data.

When the dashboard appears, you will see the first utility alphabetically in the survey group. Please select the desired utility/rate structure, selecting service(s), monthly usage, and comparison group of your choosing on the left half of the dashboard.

Please click the "OK" button below when you are ready to proceed.

Funded by the Georgia Environmental Finance Authority. Data sources. GEFA/EFC/UGA 2021 Water & Sewer Rates Survey. Georgia Department of Community Affairs. Georgia Public Service Communition 2019 Residential Finergy Rate Survey, U.S. FPA Safe Drinking Water Information System, U.S. Census Bureau 2015-2019 American Community Survey, U.S. Frengy Information Administration, and U.S. Geological Survey

Email feedback or comments Email: Email finance Center



Utility Rate Schedules

Effective July 1, 2020

\$27.50/month

\$27.50/month

\$200 per pull

\$200 per puli

\$120/month

\$25 each

\$25 each

\$5 + landfill

\$10 + landfill

\$15 + landfill

\$25 + landfill

\$736.10

\$150/load w/ boom

Normal Cart Charge

Landfill

\$200 per pull +

Jar	bage	¿ Col	lection	r Fees
			ential	

Individual (regular rate) \$18.00/month Individual (Senior Citizen, 70 yrs old) \$14.00/month Lexington Place (per apartment) \$15.00/month **Additional Cart** \$18.00/month

Carts -- Commerical Cart (regular rate)

Each additional cart

Recycle Cardboard Compactor Recycle Metal Roll-Off

Compactors Compactor Box Rental

Special Handling Items

Brown Goods/Large Items White Goods

Tires

Passenger With Rims

Truck & Larger With Rims

Eviction or Removing Rem

Late Can

Four Yards

Blue Can Trash

5 p/u week

Water Rate Schedule

Residential

0 - 2,000 Gallons

Over 2.000 Gallons

\$2.39 per 1,000 gallor

\$12.08

\$33.74

\$34.78

\$17.30

Commercial

0 - 2,000 Gallons 2,000 - 30,000 Gallons

Over 30,000 Gallons

Galleria Mall Water 0 - 2,000 Gallons

> 2,000 - 30,000 Gallons Over 30,000 Gallons

\$5.08 per 1,000 gallor \$3.83 per 1,000 gallor

\$1.96 per 1,000 Gallo

\$3.94 per 1,000 gallor

\$3.01 per 1,000 gallor

Residential/Commercial Sewer

0 - 2,000 Gallons, minimum \$14.92

Over 2,000 Gallons \$1.53 per 1,000 gallor Maximum Residential Inside City Limits\$30.22

Sewer Rate (12,000 gal.)

Galleria Mall

0 - 2.000 Gallons

Over 2,000 Gallons

Commerical Dumpsters

1 p/u week	\$73.61
2 p/u week	\$147.22
2 p/u month	\$36.81
3 p/u week	\$220.83
4 p/u week	\$294.44
5 p/u week	\$368.05
Six Yards	
1 p/u week	\$110.42
2 p/u week	\$220.83
3 p/u week	\$331.25
4 p/u week	\$441.66
5 p/u week	\$552.08
Eight Yards	NAME OF TAXABLE PARTY.
1 p/u week	\$147.22
2 p/u week	\$294.44
3 p/u week	\$441.66
4 p/u week	\$558.88

Roll-Offs LF - 4 ton minimum

— •••	
Tree Removal	\$200 + landfill
Construction Material	\$200 + landfill
Move Outs/Clean Ups	\$200 + landfill
Roofing Materials	\$200 + landfill
Remodeling Material	\$200 + landfill
Lot Clearing Debris	\$200 + landfill
Rental fee/inactive	\$120 per month
Delivery/Respot fees	\$125

Bulk Waste

- Small items (limit 2 per month), picked up at no charge
- Brown goods large items such as dressers, mattresses, bed frames, refrigerators, AC units, etc = \$25 each
- Any extra bags and repeated excess trash will generate a second cart charge.
- Extra charges will be reviewed by the City and work orders generated. This limits the issue of charged being

Batterideniad construction debris will not be picked up at all. Only the allotted amount of yard waste will be collected each week.

For questions and more information,

please contact the Centerville Water Department at (478) 953-3222

FORECASTED REVENUES FY 2024 to FY 2032

New Customers/ Revenues:	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 28-29	FY 29-30	FY 30-31	FY 31-32	Total
Projected Number of New Customers 300 within 3 years and an additional 400-600 in years 4-8 Developer will build 60 houses per Phase. Each phase will take 6 months.	99	120	120	120	120	120	120	120	
Residential Commercial Industrial	800	120 0 0	0 0	120 0 0	0 0	0 0	120 0	0 0	
Projected new service revenue	\$ 49,162	\$ 98,324	\$ 98,324	\$ 98,324	\$ 98,324	\$ 98,324	\$ 98,324	\$ 98,324	
Water charges Reconnect Late	15,797 774 1,422	31,594 1,548 2,844							
Sewer Stormwater Sanitation	15,149 3,060 12,960 49,162	30,298 6,120 25,920 98,324							
Projected new Tap/Connection/impact fees		120,000	120,000	٠ ا٦		- I			
lotal Forecasted Utility Revenues Rate Increase	None	\$ 2.10,324 None	\$ 219,324 Nane	\$ 219,324 None	% 210,324 None	% 2.10,324 None	\$ 210,324 None	\$ 210,324 None	
Additional Increases to Revenue Property taxes new homes -FMV \$250,000 Assessed value (40%) \$100,000 each home at current millage rate of 10.364 Total Forecasted property tax revenues	\$ 62.184	\$ 124,368	\$ 124,368	\$ 124,368	\$ 124,368	\$ 124,368	\$ 124,368	\$ 124.368	
Total Forecasted Revenues	\$ 171,346	\$ 342,692	\$ 342,692	\$ 342,692	\$ 342,692	\$ 342,692	\$ 342,692	\$ 342,692	\$ 2,570,190

Annual Water & Sewer Bills as

% MH

Median Affordability

Min 50.00 Max \$33.00

Water & Sewer Price 1,000 gallons, after 1 0,000 gallons

Conservation Signal

Appendix B FEMA Flood Maps

