

# WAUFORD

J. R. Wauford & Company, Consulting Engineers, Inc.  
www.jrwauford.com

February 22, 2019

Ms. Leslie Gillespie-Marthaler, Director  
State Revolving Fund Loan Program  
Division of Water Resources  
William R. Snodgrass Tennessee Tower  
312 Rosa L. Parks Avenue, 12<sup>th</sup> Floor  
Nashville, TN 37243-1102

Emailed: [Ask.SRF@tn.gov](mailto:Ask.SRF@tn.gov)

RE: 2019 SRF Sewer System Improvements  
Crossville, Tennessee  
Wauford Project No. 4638

Dear Ms. Gillespie-Marthaler:

The purpose of this letter is to request the subject Sewer System Improvements project be added to the 2019 Priority Ranking List to obtain SRF funds for the City of Crossville.

The City of Crossville currently discharges their Meadow Park Water Treatment Plant (WTP) backwash sludge to two lagoons for settling prior to discharging effluent back into Meadow Park Lake. These lagoons eventually are required to be cleaned due accumulation of sludge. In order to continually operate the Meadow Park WTP, it is proposed to install a small sewage pumping station to divert flow from the settling basins and filter backwash through a 4-inch sewage force main to the existing Wastewater Treatment Plant (WWTP). The 4-inch sewage force main will also provide additional sewer service to currently unsewered properties.

We are seeking funding for the Sewer System Improvements (as shown at Exhibit No. 1, attached) consisting of the construction of a new 4-inch force main and small sewage pumping station which is estimated to cost \$953,000 as shown on Cost Estimate No. S-2 (attached).

Also attached is the State Revolving Fund Loan Program Questionnaire FY 2019 Priority Ranking Lists.

If you have any questions or comments, please do not hesitate to contact me.

Yours very truly,

J. R. WAUFORD & COMPANY,  
CONSULTING ENGINEERS, INC.



Scott B. Carroll, P.E.  
Project Manager

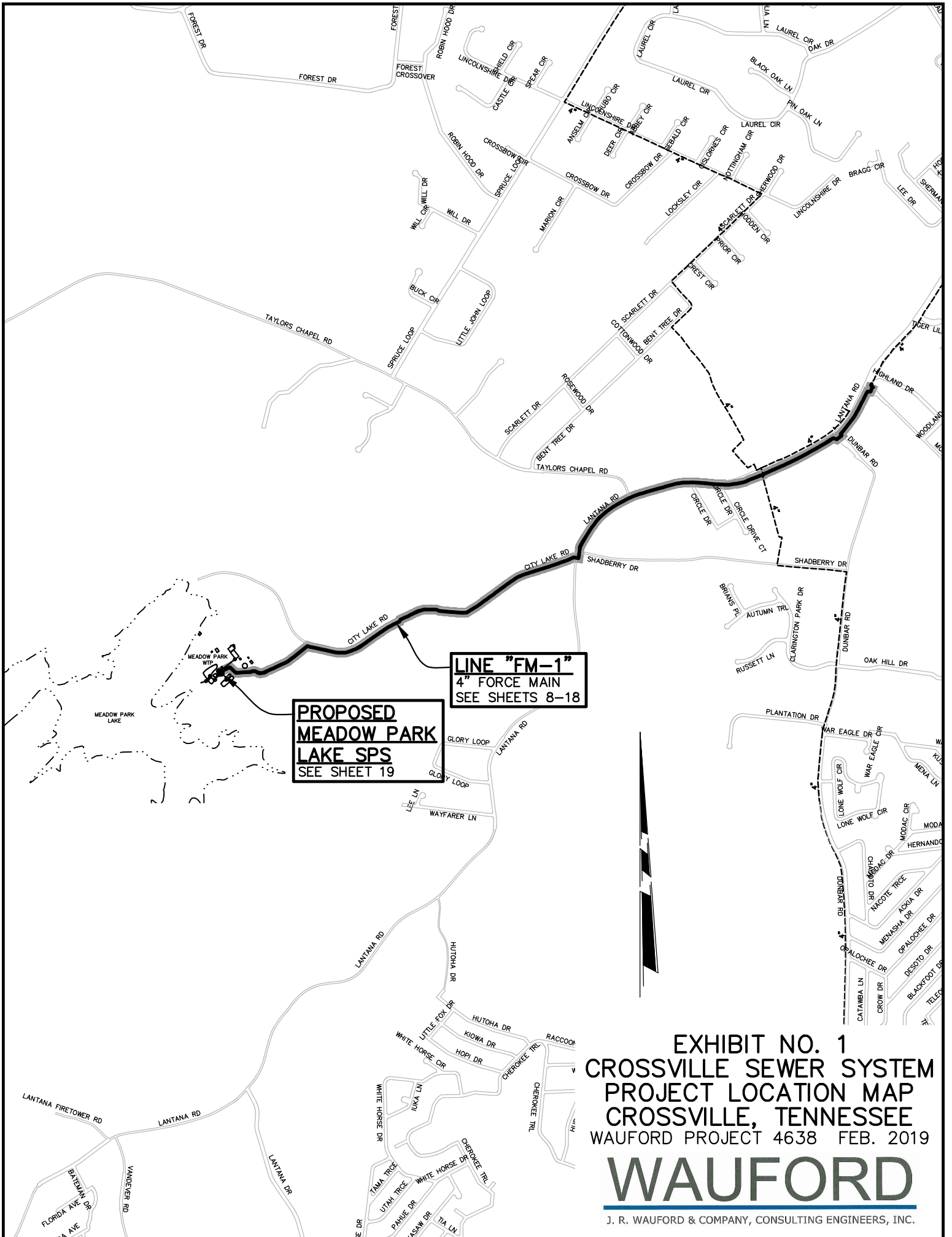
## Attachments

cc: Felicia Freeman, Financial, [Felicia.D.Freeman@tn.gov](mailto:Felicia.D.Freeman@tn.gov)  
Greg Wood, City Manager, [greg.wood@crossvilletn.gov](mailto:greg.wood@crossvilletn.gov)  
Tim Begley, Director of Engineering, [tim.begley@crossvilletn.gov](mailto:tim.begley@crossvilletn.gov)  
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529 Old Hickory Boulevard, Suite A  
Jackson, Tennessee 38305  
(731) 668-1953  
Fax (731) 668-6809



**PROPOSED  
MEADOW PARK  
LAKE SPS  
SEE SHEET 19**

**LINE "FM-1"  
4" FORCE MAIN  
SEE SHEETS 8-18**

**EXHIBIT NO. 1  
CROSSVILLE SEWER SYSTEM  
PROJECT LOCATION MAP  
CROSSVILLE, TENNESSEE  
WAUFORD PROJECT 4638 FEB. 2019**

**WAUFORD**

J. R. WAUFORD & COMPANY, CONSULTING ENGINEERS, INC.

COST ESTIMATE NO. S-2  
MEADOW PARK LAKE LOW PRESSURE SEWER LINE  
ALTERNATE NO. 2 CITY LAKE/LANTANA ROAD ROUTE  
CITY OF CROSSVILLE, TENNESSEE  
WAUFORD PROJECT NO. 4638

<u>Item</u>	<u>Quantity</u>	<u>Description</u>	<u>Unit Price</u>	<u>Cost</u>
1.	2 E.A.	Connection to Existing Sewage Force Main	\$ 5,000/E.A.	\$10,000
2.	60 L.F.	12-inch Bored Highway Crossing	\$ 350/L.F.	\$21,000
3.	255 L.F.	Install 4-inch RJDIP Force Main, in Casing	\$ 50/L.F.	\$12,750
4.	12,866 L.F.	Install 4-inch PVC Force Main, Open Cut	\$ 30/L.F.	\$385,980
5.	Lump Sum	New Sludge Pumping Station at WTP	\$150,000/L.S.	\$150,000
6.	3 E.A.	New Air Release Valve Assembly	\$ 8,000/E.A.	\$24,000
7.	14,000 L.F.	Roadway and Easement Repair	\$ 3/L.F.	\$42,000
8.	30 E.A.	Removal and Replacement of Driveways	\$ 2,000/E.A.	<u>\$60,000</u>
ESTIMATED CONSTRUCTION COST				\$705,730
CONSTRUCTION CONTINGENCIES (15%)				\$104,270
1. Budgeted for Construction				\$810,000
2. Engineering: Preliminary & Planning				\$25,000
Design				\$53,000
Bidding & Award				\$3,000
During Construction				<u>\$62,000</u>
TOTAL ESTIMATED PROJECT COST				\$953,000

ENR CONSTRUCTION COST INDEX – 11213 (February 2019)

# STATE REVOLVING FUND LOAN PROGRAM QUESTIONNAIRE FY 2019 PRIORITY RANKING LISTS

Please call 615-253-5134 with questions concerning completing this form.

1. CITY/CO/UD/AUTHORITY'S NAME	<u>City of Crossville, Tennessee</u>		
2. CONTACT PERSON	<u>Mr. Greg Wood</u>	PHONE	<u>(931) 484 – 7060</u> E-MAIL <u>greg.wood@crossvilletn.gov</u>
3. COUNTY(IES) SERVED	<u>Cumberland County</u>	CURRENT POPULATION SERVED	<u>11,449</u>
4. CITY/CO/UD/AUTHORITY'S 9-DIGIT DUNS NUMBER	<u>030668115</u>		
5. CONSULTING FIRM, if applicable.	<u>J.R. Wauford &amp; Company, Consulting Engineers, Inc.</u>		
6. CONSULTANT'S NAME	<u>J. Gregory Davenport, P.E.</u>	PHONE	<u>(615)883 – 3243</u> E-MAIL <u>gregd@jrwauford.com</u>

7. IS THIS REQUEST FOR:  Complete "A", "B", or "C"	CLEAN WATER SRF LOAN? <u>X</u>	DRINKING WATER SRF LOAN? _____
	A. Associated NPDES Permit No./ SOP No. <u>TN0024996</u>	C. Public Water System Number <u>TN.....</u>
	B. Non-discharge Type _____	

8. BRIEF PROJECT DESCRIPTION Wastewater Collection Force Main

9. PROJECTED CONSTRUCTION START DATE (10/2019) PROJECTED CONSTRUCTION END DATE (04/2019)

10. Please check <b>ONLY</b> 1 PRIMARY reason	<b>PRIMARY REASON FOR THE CW PROJECT</b>	<b>PRIMARY REASON FOR THE DW PROJECT</b>
	ACHIEVE COMPLIANCE _____ MAINTAIN COMPLIANCE _____ PUBLIC HEALTH/ PATHOGEN REDUCTION _____ MEET FUTURE REQUIREMENTS _____ INFRASTRUCTURE IMPROVEMENT <u>X</u> REGIONALIZATION/ CONSOLIDATION _____ WATER REUSE/ RECYCLING/ CONSERVATION _____ GROUNDWATER PROTECTION _____ WETLAND RESTORATION _____ GROWTH _____ OTHER*Please explain in the comments section on Page 2 _____	ACHIEVE COMPLIANCE _____ MAINTAIN COMPLIANCE _____ PUBLIC HEALTH _____ MEET FUTURE REQUIREMENTS _____ INFRASTRUCTURE IMPROVEMENT _____ CONSOLIDATES SYSTEMS _____ WATER REUSE/ RECYCLING/ CONSERVATION _____ CREATES NEW SYSTEM _____ OTHER*Please explain in the comments section on Page 2 _____

11. TOTAL PROJECT AMOUNT –Amount should equal sum of next 3 rows.	<u>\$953,000</u>
FUNDING AMOUNT - SRF LOAN	<u>\$953,000</u>
FUNDING AMOUNT - CDB GRANT	_____
FUNDING AMOUNT - OTHER	_____

12. DOES PROJECT INCLUDE A GREEN COMPONENT? If so, please complete the following 4 rows as applicable.	
GREEN INFRASTRUCTURE (\$) Including All Engineering Costs, Etc.	_____
ENERGY EFFICIENCY (\$) Including All Engineering Costs, Etc.	_____
WATER EFFICIENCY (\$) Including All Engineering Costs, Etc.	_____
GREEN INNOVATIVE (\$) Including All Engineering Costs, Etc.	_____

# STATE REVOLVING FUND LOAN PROGRAM QUESTIONNAIRE FY 2019 PRIORITY RANKING LISTS

Please call 615-253-5134 with questions concerning completing this form.

**THIS PAGE IS FOR CLEAN WATER (wastewater) PROJECTS ONLY**

From Rationale Sheet of Permit: **HUC CODE** 06010208 **RECEIVING STREAM & River Mile** Obed River @38.6

**IS THE DISCHARGE LOCATION A 303(d)-LISTED STREAM?**

Yes  No

Use the *EPA Approved Final 2018 303(d) List*

**WWTP FLOW DATA (MGD)—TO BE COMPLETED FOR ALL WASTEWATER PROJECTS**

	CURRENT	PRESENT DESIGN	FUTURE DESIGN
MUNICIPAL FLOW	<u>1.50</u>	<u>2.20</u>	<u>2.20</u>
INDUSTRIAL FLOW	<u>0.10</u>	<u>0.50</u>	<u>0.50</u>
INFILTRATION From Groundwater	<u>0.80</u>	<u>0.80</u>	<u>0.80</u>
TOTAL FLOW	<u>2.40</u>	<u>3.50</u>	<u>3.50</u>
WET WEATHER FLOW (PEAK)	<u>5.70</u>	<u>7.00</u>	<u>7.00</u>

**PLEASE COMPLETE ALL THAT APPLY**

**\*\*COSTS--Please include ALL associated costs (Should equal the total project amount shown in Item No. 11 on previous page)**

PROJECT DESCRIPTIONS	TYPE**	COSTS***
Collection System (new)	IV-A	\$
Collection System Expansion	IV-A	\$
Collection System Rehabilitation/Replacement	III-B	\$
Collection System Relocation	IV-A	\$
Combined Sewer Overflow (CSO) Correction	V-A	\$
Comprehensive Odor Control - Collection System	III-B	\$
Comprehensive Odor Control - WWTP	I	\$
CSO Correction: Green Infrastructure	V-B	\$
CSO Correction: Sewer Separation	V-A	\$
CSO Correction: Storage, Treatment, and Conveyance Facilities	V-A	\$
Decentralized Wastewater Treatment Systems	XII	\$
Effluent Force Main (new)	I	\$
Effluent Pump Station (new)	I	\$
Filter Press System (new)	I	\$
Force Main - Collector (new)	IV-A	\$953,000
Force Main - Interceptor (new)	IV-B	\$
General Stormwater Management	VI-D	\$
Green Infrastructure	VI-C	\$
I/I (Infiltration/Inflow) Correction	III-A	\$

PROJECT DESCRIPTIONS	TYPE**	COSTS***
NPS Control: Ground Water Protection (Unknown Source)	VII-E	\$
NPS Control: Hydromodification	VII-K	\$
Outfall (new)	I	\$
Planning-only	XIII	\$
Pump Station - Collector (new)	IV-A	\$
Pump Station - Interceptor (new)	IV-B	\$
Pump Station Improvements	III-B	\$
Pump Station Repairs/Rehabilitation	III-B	\$
Recycled Water Distribution	X	\$
Sewer Interceptor (new)	IV-B	\$
Storm Water Management Programs	VI	\$
Stormwater Conveyance Infrastructure	VI-A	\$
Stormwater Treatment Systems	VI-B	\$
WWTP - Advanced Treatment (new)	II	\$
WWTP - Secondary Treatment (new)	I	\$
WWTP Expansion from ??MGD to ??MGD - Advanced Treatment	II	\$
WWTP Expansion from ??MGD to ??MGD- Secondary Treatment	I	\$
WWTP Improvements/Upgrade - Advanced Treatment	II	\$
WWTP Improvements/Upgrade - Secondary Treatment	I	\$
Other*Please explain in the comments section		\$

**COMMENTS:**