

west virginia department of environmental protection

Division of Water and Waste Management 601 57th Street, SE Charleston, WV 25304

Phone: 304-926-0495 / Fax: 304-926-0463

Harold D. Ward, Cabinet Secretary dep.wv.gov

MEMORANDUM

To: Marie Prezioso, Chair

Funding Committee

Infrastructure and Jobs Development Council

From: Katheryn Emery, P. E.

Sewer Technical Review Committee

Date: May 26, 2023

Subject: City of Stonewood

IJDC No. 2023S-2354

Sanitary Sewer Improvements

- This committee has reviewed the preliminary application and engineering report submitted for the above referenced project in accordance with Chapter 31, Article 15A. It has been determined that the proposed project is:
 a. √ Consistent with the intent of the Infrastructure and Jobs Development Act and is
 - the most cost-effective, environmentally sound alternative for solving the wastewater needs in this area.
 - b. ___ Not consistent with the Act and may not be the most cost effective, environmentally sound alternative for solving the wastewater needs in this area.
 - c. Same as (a) above except that certain issues need to be addressed prior to design and construction as the attached comments indicate.
- 2. Our recommendation is that:
 - a. √ The Funding Committee needs to review the proposed sources of funding to determine the best mix of grant and/or loan funds in accordance with applicable guidelines.
 - b. __ The Funding Committee should recommend that the Council approve the proposed project and its funding plan.

- c. ___ The Funding Committee does not need to review the funding assumptions on this project because of deficiencies in the engineering report. The proposed project funding should be tabled until technical comments have been resolved.
- d. This project should be referred to the Consolidation Committee.

3. Other remarks:

This project will address the City's inflow and infiltration issue by rehabilitating portions of the City's existing wastewater gravity collection system. The Rt. 58 pump station and corresponding forcemain will also be upgraded and equipment will be included to help maintain the system.

The proposed total cost for this project is \$7,654,637.00 and the City intends to pursue a \$2,500,000 Congressionally Directed Spending, \$3,500,000 in RUS Loan (with terms of 1.75, 40 years), a \$900,000 RUS Grant, a Harrison County Commission ARPA Grant, and a \$754,637.00 City of Stonewood ARPA Grant.

Attachments: Technical Comments

Engineering Fees:

Estimated construction cost = \$6,450,000.00 Consultant's design fee = \$300,000.00 Consultant's total fee = \$770,000.00 Design fee percentage = 4.7 % Design fee per ASCE curve = 7.0 % Total fee per ASCE curve = 11.9 % Total fee per ASCE curve = 18.0 %

Preliminary Project Ratings:

Public Health Benefits: 10
Compliance with Standards: 15
O & M Capabilities 2
Readiness to Proceed 0
Cost Effectiveness 1



STATE OF WEST VIRGINIA DEPARTMENT OF HEALTH AND HUMAN RESOURCES

Bureau for Public Health

Jeffrey H. Coben, MD **Interim Cabinet Secretary** Office of Environmental Health Service

Matthew Q. Christiansen, MD, MPH Commissioner & State Health Officer

MEMORANDUM

TO: Jason Billups, P.E.

DEP/Infrastructure Sewer Technical Review Committee

FROM: William S. Herold, Jr., P.E., Assistant Manager

I/CD/Environmental Engineering Division

DATE: May 13, 2023

SUBJECT: City of Stonewood

> Preliminary Application Project No.: 2023S-2354

Sewer Line Upgrade/Replacement

Harrison County

RECOMMENDATION:

We have reviewed this preliminary application and recommend it be forwarded to the Funding Committee for review.

PROJECT SCOPE:

This preliminary application is to upgrade or replace sewer lines in the City of Stonewood. The project will consist of the installation of approximately 4,565 LF of 18", 1,960 LF of 12", 1,485 LF of 10" and 440 LF of 8" sewer line; remove and replace approximately 985 LF of 18", 135 LF of 12", 550 LF of 10" and 440 LF of 8" sewer line; 46 manholes; remove and replace 32 manholes; one (1) new sewage lift station; and approximately 1,080 LF of 4" force main.

The cost per customer is \$7,795. Total estimated project cost is \$7,654,637 (City of Stonewood ARPA Fund: \$654,637; Harrison County Commission ARPA Fund: \$100,000; USDA-RUS Grant: \$900,000; USDA RUS Loan: \$3,500,000 @1.75% for 40 years; and WDA Economic Enhancement Grant Fund: \$2,500,000).

NEED FOR PROJECT:

The Preliminary Engineering Report indicates the City of Stonewood has high I&I primarily due to deteriorated sewer lines (joint separation, line settling, VCP, minimum slope, unlined brick manholes).

CONCERNS:

None.

PERMITS:

A permit **will be** required from the WV Bureau for Public Health.



west virginia department of environmental protection

Division of Water and Waste Management 601 57th Street, SE Charleston, WV 25304 Phone: 304-926-0495 / Fax: 304-926-0463 Harold D. Ward, Cabinet Secretary dep.wv.gov

MEMORANDUM

TO: Katheryn Emery, P.E., Director, DWWM

FROM: Corey McComas, DWWM

DATE: April 24, 2023

SUBJECT: City of Stonewood

IJDC No. 2023S-2354

Sanitary Sewer Improvements

RECOMMENDATION

The IJDC Application and Preliminary Engineering Report prepared by The Thrasher Group, for the above referenced project has been reviewed and is technically feasible.

PROJECT DESCRIPTION

The City of Stonewood currently owns a wastewater collection system and serves 904 customers in Harrison County, WV. All sewage collected in the City is forwarded to the Town of Nutter Fort then treated by the City of Clarksburg's wastewater treatment facility, which discharges into the West Fork River.

The project will remove and replace old, dilapidated sewer lines in the City's collection system that have been identified as major inflow and infiltration (I&I) contribution areas, mainly along the roads of Water St., Cost Ave., and Woodland Ave. Also, the Rt. 58 pump station and corresponding forcemain will also be upgraded because it is undersized to convey the amount of sewage it receives. Necessary equipment for the City such as an excavator, trailer, and jetter will be purchased as a part of this project.

The proposed total cost for this project is \$7,654,637.00 and the City intends to pursue a \$2,500,000 Congressionally Directed Spending, \$3,500,000 in RUS Loan (with terms of 1.75, 40 years), a \$900,000 RUS Grant, a Harrison County Commission ARPA Grant, and a \$754,637.00 City of Stonewood ARPA Grant.

The proposed monthly rate for 3,400 gallons is \$65.77 (1.74 % MHI).

NEED FOR PROJECT

An Inflow and Infiltration Study was conducted on the City of Stonewood's current system and several problem areas were discovered. A portion of the main interceptor line running along Elk Creek down Water Street is in poor condition and in need of replacement. Several sections of existing pipe throughout the City are deteriorating and needing to be replaced. During the smoke test study of these sections the existing pipe showed various deficiencies including broken and/or separated pipes, unsealed manholes, and storm drains that are tied into the system. The removal and replacement of sewer lines in the City's collection system is necessary and should address these areas for reducing I/I.

In addition to this, the Rt. 58 pump station and corresponding forcemain will also be upgraded because it is undersized to convey the amount of sewage it receives. This causes overflows during wet weather events. The equipment purchase is needed for the City to perform the O&M that is required.

DEFICIENCIES/COMMENTS

- The PER should include a section that evaluates existing and future population projections.
- The PER stated 904 customers and the application stated 982. The 904 number was used in this memo.
- Was there any documentation of need (NOVs, Orders, etc.)? If so, please include it in the PER.
- The PER will need to be developed into a facilities plan that meets CWSRF requirements if CWSRF is used.

Engineering Fees:

Estimated construction cost = \$ 6,450,000.00 Consultant's design fee = \$ 300,000.00 Consultant's total fee = \$ 770,000.00 Design fee percentage = 4.7 % Design fee per ASCE curve = 7.0 % Total fee percentage = 11.9 % Total fee per ASCE curve = 18.0 %

Preliminary Project Ratings:

Public Health Benefits: 10 Compliance with Standards: 15

Public Service Commission of West Virginia

201 Brooks Street, P.O. Box 812 Charleston, West Virginia 25323



Phone: (304) 340-0300 Fax: (304) 340-0325

May 4, 2023

Ms. Kathy Emery, P. E.
Office of Water Resources
Department of Environmental Protection
601 57th St.
Charleston, West Virginia 25304

Re: Public Service Commission Staff Review Comments

Application No. 2023S-2354 City of Stonewood - Sewer

Infrastructure Preliminary Application

Dear Ms. Emery:

As requested, the Technical Staff of the Public Service Commission of West Virginia has completed its review of the above-referenced Infrastructure application. In light of the District's current financial condition, we are recommending the application be:

X forwarded to the Funding Committee
forwarded to the Consolidation Committee
return to the Applicant
Please advise if you have any questions.

Sincerely,

Jonathan M. Fowler, P.E. Engineering Division

JMF:vb

PUBLIC SERVICE COMMISSION STAFF TECHNICAL REVIEW

DATE:

May 4, 2023

PROJECT SPONSOR: CITY OF STONEWOOD (SEWER)

PROJECT SUMMARY: The project will replace dilapidated sewer lines in the

City of Stonewood system that have been identified as major inflow & infiltration (I&I) contribution areas, mainly along the roads of Water Street, Cost Avenue, and Woodland Avenue. As part of this project, the Rt. 58 pump station and corresponding force main will also be

upgraded. Necessary equipment for the City of

Stonewood such as an excavator, trailer and jetter will

be purchased as a part of this project.

PROPOSED FUNDING: USDA Loan (1.75%, 40 yrs.) \$3,500,000

USDA Grant \$ 900,000
Harrison County Commission Grant \$ 100,000
City of Stonewood ARPA Grant \$ 654,637
WDA Economic Enhancement Grant \$2,500,000

Total \$7,654,637

CURRENT RATES: \$35.64 3,400 gallons

\$41.84 4,000 gallons

PROPOSED RATES: \$65.77 3,400 gallons

\$77.22 4,000 gallons

Application No. 2023S-2354

RECOMMENDATION: X forward to the Funding Committee.

forward to the Consolidation Committee.

return to the Applicant.

FINANCIAL: Stephen Edens

1. Current rates (\$35.64 for 3,400 gallons) are below the rates attributable to 1.25% (\$47.12), 1.5% (\$56.55), 1.75% (\$65.97) and 2.0% (\$75.39) of the Median Household Income (MHI). Increasing current rates to 1.25%,

- 1.5%, 1.75% and 2.0% of the MHI would provide additional revenues of \$153,528, \$279,553, \$405,578 and \$531,603 respectively.
- 2. Using Scenario 1, the preferred funding package consisting of a USDA Loan of \$3,500,000 at 1.75% for 40 years (paid back over 38 years), a \$900,000 USDA Grant, a Harrison County Commission Grant of \$100,000, a \$654,637 City of Stonewood ARPA Grant, and a WDA Economic Enhancement Grant of \$2,500,000, proposed will provide a cash flow surplus of \$17,093 and debt service coverage of 179.49%.
- 3. Using the Scenario 2 alternate loan package of \$2,500,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), and committed funds consisting of a USDA Loan of \$3,500,000 at 1.75% for 40 years (paid back over 38 years), a \$900,000 USDA Grant, a Harrison County Commission Grant of \$100,000, and a \$654,637 City of Stonewood ARPA Grant, proposed rates will provide a cash flow deficit of \$123,578 and debt service coverage of 91.12%. An additional 18.5% (for a total of \$80.58 for 3,400 gallons) increase in proposed rates would be required to provide a cash flow surplus of \$247 and debt service coverage of 137.29%.

NOTES TO COMMENTS:

- A. Staff's detailed adjustments are listed on Attachment A for Scenario 1 (Preferred Funding Package) and Attachment B for Scenario 2 (Loan Package).
- B. The Going Level and Proforma adjustments included in the Applicant's Cash Flow Analyses for Scenarios 1 and 2 were used in Staff's Cash Flow Analyses, except as noted on Attachments A and B.
- C. Staff prepared the attached Cash Flow Analysis utilizing information from the Annual Report for the Fiscal Year Ended June 30, 2022, and the applicant's Rule 42 Exhibit submitted with the application.
- D. Staff notes that the project sponsor submitted Outside Commitment letters from the USDA for a loan in the amount of \$3,500,000 at 1.75% for 40 years (paid back over 38 years), and a grant in the amount of \$900,000, from the Harrison County Commission for a grant of \$100,000, and from the City of Stonewood Sewer Board for an ARPA grant of \$654,637.

- E. Staff notes the applicant's Rule 42 Exhibit reflects going level rates of \$49.71 for 3,400 gallons, which Staff has utilized in its analysis, however, as of this date no ordinance adopting these rates has been finalized nor has any rate ordinance been submitted to the Public Service Commission for Legal review.
- F. Senate Bill 234, effective June 12, 2015, required water and sewer utilities that are political subdivisions of the state to maintain a cash working capital reserve in an amount of no less than one-eighth (1/8) of actual annual operation and maintenance expenses. It should be noted that the cash flows provided by the project sponsor include funding for the 1/8 cash working capital reserve. Staff accepted that amount in its analyses. However, this amount may be reviewed by the Commission in future filings in accordance with Public Service Commission General Order 183.11.
- G. Senate Bill 234 (2015) required, pursuant to WV Code 24-2-4b (b), that municipally operated utilities shall consider a reasonable plant-in-service depreciation expense for rates and charges. The project sponsor should take this into consideration when preparing its Rule 42. Municipals that do not provide for a reasonable depreciation expense risk delays in Certificate of Convenience and Necessity filings if rates are determined to not be sufficient.
- H. The City of Stonewood should carefully evaluate its revenue requirements before passing a rate ordinance in order to ensure that rates are sufficient to provide a reasonable surplus and meet coverage requirements. Calculations to support the revenue projections should also be provided.

ENGINEERING: Brandon Crace

- 1. This project will require a Certificate of Convenience and Necessity from the PSC. The project sponsor should reference this application number on the PSC's Form No. 4 when its application is filed at the Commission given the requirement of West Virginia Code §24-2-11 (c) and (e) et seq. Staff notes that an affirmative determination of need for the project must be established in a Certificate filing at the PSC.
- 2. Scope: The City of Stonewood (Stonewood) is proposing to extend sewer

service to approximately 28 residents in the community of Curtis. The proposed project scope includes: replacement of 4,420 LF of 8 to 18 inch PVC and DIP gravity sewer pipe, installation of 8,450 LF of 8 to 18 inch PVC and DIP gravity sewer pipe, 4,000 LF of 4-inch PVC lateral pipe, 1,080 LF of 4-inch force main, removal and replacement of 32 manholes, installation of 46 manholes, new Route 58 lift station, abandonment of 30 manholes, abandonment of 4,250 LF of sewer pipe, 130 customer reconnections with 4-inch cleanouts, 195 VF of riser pipe, 130 4-inch wyes, bore and jack steel casing, open cut steel casing, (gravel, concrete, asphalt) driveway repairs, concrete curb and sidewalk repair, asphalt pavement for road repairs, trench and surface restorations, purchase a mini-excavator with a transport trailer, purchase a jetter, and all necessary valves and appurtenances. The estimated construction cost is \$6,450,000 (includes 9.66% construction contingency), and the estimated total project cost is \$7,654,637 (includes 12.06% project contingency).

Need: The PER states that investigative and camera work discovered some sections of the sanitary sewer system were in worse condition than expected, and other sections were in better condition than expected. The PER indicates that interceptor lines and sewer mains are in poor condition and in need of upgrades. The City is experiencing deterioration of manholes and system backups related to I&I issues. The City does not own the necessary equipment needed therefore burdening the city to rent or borrow equipment. The proposed project scope will address the issues identified in the PER.

Customer Density: This project is an upgrade/improvement project; therefore, customer density will remain unchanged.

Cost per Customer: Based upon the estimated total project cost of \$7,654,637, and having approximately 903 customers (2022 Annual Report), the cost per customer will be approximately \$8,477. However, the cost per customer in terms of proposed borrowing is \$3,876, as the proposed funding is 54% grant.

- 3. Project Feasibility: The project scope appears to be technically feasible and poses little technical risk.
- 4. Project Alternatives: The PER includes three (3) alternatives: #1 replace and upgrade deteriorating lines, #2 pipe bursting, #3 do nothing. Although the PER includes alternates, Amendment 1 and 2 to the PER have modified the proposed project's scope of work, as defined in Amendment 2.
- 5. Consolidation: There are no consolidation opportunities presented by this

project.

6. Deficiencies/Inconsistencies:

- 6.1. The IJDC Application budget does not match the PER's budget; however, the total project cost matches.
- 6.2. The IJDC Application does not discuss O&M expenses.
- 7. Operation and Maintenance (O&M) Expenses: The PER does not include a discussion of O&M expenses, projections, or an explanation of how the rehabilitated system would be maintained.
- 8. Engineering Agreement: The application includes information to determine compliance with West Virginia Code §5G-1-1, et seq. Total technical services (engineering) costs for the project are \$770,000, which is equal to 11.94% of the construction cost is \$6,450,000 (includes 9.66% construction contingency).

Preliminary Project Ranking			
O & M Capabilities		I Esta	
Performance Measures:	1	Pt.	
Asset Management:	1	Pt.	
Environmental Management:	0	Pt.	
Readiness to Proceed:	0	Pt.	
Cost Effectiveness:	1	Pt.	
Compliance with PSC Orders:	0	Pt.	

PREFERRED FUNDING PACKAGE SCENARIO 1

CITY OF STONEWOOD - SEWER CASH FLOW ANALYSIS YEAR ENDED: June 30, 2022 APPLICATION NO: 2023S-2354

May 4, 2023	Rule 42 Going Level Per Application Before Project 1 \$	Rule 42 Proforma Per Application with Project 2 \$	Staff Adjustments 3 \$		Per Staff Analysis 4 \$
AVAILABLE CASH					
Operating Revenues	448,293	607,441	-		607,441
Other Operating Revenue	10,678	14,129	-		14,129
SB 234 Annual Working Cash Collections	52,759	55,531	-		55,531
Interest Income & Other Misc.	232	232	-		232
Total Cash Available	511,962	677,333	-	9	677,333
OPERATING DEDUCTIONS					
Operating Expenses	444,250	444,250	-		444,250
Taxes	5,358	5,358	-		5,358
Total Cash Requirements Before		(i	-	9	
Debt Service	449,608	449,608	-		449,608
Cash Available for Debt Service (A)	62,354	227,725	-	9	227,725
DEBT SERVICE REQUIREMENTS		100 105	740	(4)	100.075
Principal & Interest (B) Other Debt		126,165	710 -	(1)	126,875 -
Reserve Account @ 10%		12,617	70	(2)	12,687
Renewal & Replacement Fund (2.5%)	32,564	32,564	(17,025)		15,539
Total Debt Service Requirement	32,564	171,346	(16,245)	i,	155,101
SB 234 Cash Working Capital	52,759	55,531	-		55,531
Remaining Cash	(22,969)	848	16,245		17,093
Percent Coverage (A) / (B)		180.50%			179.49%
Average rate for 3,400 gallons Average rate for 4,000 gallons	\$ 49.71 \$ 58.36	\$ 65.77 \$ 77.22	\$ - \$ -		\$ 65.77 \$ 77.22
	,	•	•		

CITY OF STONEWOOD - SEWER CASH FLOW ANALYSIS YEAR ENDED: June 30, 2022 APPLICATION NO: 2023S-2354 Attachment A
PREFERRED FUNDING PACKAGE
SCENARIO 1

Increase

Staff Adjustments

	Adjustment Description		\$	<decrease></decrease>
(1)	Principal & Interest	Per Staff Analysis Per Application with Project	126,875 126,165	710
	The difference in P&I is related to Staff's calculation of a loan of \$3,5 (paid back over 38 years) at 1.75%.	00,000 for 40 years		
(2)	Reserve Account @ 10%	Per Staff Analysis Per Application with Project	12,687 12,617	70
	Staff assumed a 10% reserve on the new debt.			
(3)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis Per Application with Project	15,539 32,564	(17,025)

Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.

LOAN PACKAGE SCENARIO 2

CITY OF STONEWOOD - SEWER CASH FLOW ANALYSIS YEAR ENDED: June 30, 2022 APPLICATION NO: 2023S-2354

May 4, 2023	Max Rate Going Level Per Application Before Project	Max Rate Proforma Per Application with Project	Staff Adjustments	Per Staff Analysis
	\$	2 \$	3 \$	4 \$
AVAILABLE CASH Operating Revenues Other Operating Revenue	448,293 10,678	629,897 14,607		(1) 756,897 14,607
SB 234 Annual Working Cash Collections Interest Income & Other Misc.	52,759 232	55,531 232	- -	55,531 232
Total Cash Available	511,962	700,267	127,000	827,267
OPERATING DEDUCTIONS Operating Expenses Taxes	444,250 5,358	444,250 5,358	- -	444,250 5,358
Total Cash Requirements Before Debt Service	449,608	449,608		449,608
Cash Available for Debt Service (A)	62,354	250,659	127,000	377,659
DEBT SERVICE REQUIREMENTS Principal & Interest (B) Other Debt Reserve Account @ 10%		147,087 14,709	-	2) 275,085 - 3) 27,509
Renewai & Replacement Fund (2.5%)	32,564	32,564	(13,276)	4) 19,288
Total Debt Service Requirement	32,564	194,360	127,522	321,881
SB 234 Cash Working Capital	52,759	55,531	-	55,531
Remaining Cash	(22,969)	768	(522)	247
Percent Coverage (A) / (B)		170.42%		137.29%
Average rate for 3,400 gallons Average rate for 4,000 gallons	\$ 49.71 \$ 58.36	\$ 68.00 \$ 79.83	\$ 12.58 \$ 14.77	\$ 80.58 \$ 94.60

CITY OF STONEWOOD - SEWER CASH FLOW ANALYSIS YEAR ENDED: June 30, 2022 APPLICATION NO: 2023S-2354 Attachment B LOAN PACKAGE SCENARIO 2

Increase

Staff Adjustments

	Adjustment Description		\$	<decrease></decrease>
(1)	Operating Revenues	Per Staff Analysis Per Application with Project	756,897 629,897	127,000
	Staff projected that an additional \$127,000 in revenues would be need coverage and a positive cash flow surplus.	eded to achieve 115% debt service		
(2)	Principal & Interest	Per Staff Analysis Per Application with Project	275,085 147,087	127,998
	The difference in P&I is related to Staff's calculation of a loan of \$2,5 (paid back over 38 years) at 5% and a committed USDA Loan of \$3,5 for 40 years (paid back over 38 years) at 1.75%.	•		
(3)	Reserve Account @ 10%	Per Staff Analysis Per Application with Project	27,509 14,709	12,800
	Staff assumed a 10% reserve on the new debt.			
(4)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis Per Application with Project	19,288 32,564	(13,276)

Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.