



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

From: Katheryn Emery, P.E. Engineer Chief
Sewer Technical Review Committee

Date: June 17, 2024

Subject: Town of Glasgow
Preliminary Application: IJDC No. 2024S-2566
Town of Glasgow Wastewater System Improvement Project

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1. 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 should be tabled for the consultant to address technical comments.
- d. ___ This project should be referred to the Consolidation Committee.

3. Other remarks:

The project will replace/rehab several existing areas of their collection system. This is the first phase of a multi phase project to address the excessive amounts of infiltration and inflow in their Sanitary Sewer Evaluation Study that was completed prior to the project. This will address their Order No. 8534.

The proposed total cost for this project is \$2,163,345, and the Town intends to pursue a \$1,081,672 CWSRF Principal Forgiveness Loan, \$1,000,000 in WVIJDC Grant, and \$81,673 of Glasgow ARPA Funds.

Using the Combined Application, the Total Fees are not above the ASCE curve. A variance will be needed.

Preliminary Project Ratings:

Public Health Benefits: 15
Compliance with Standards: 20

Sherri A. Young, DO, MBA, FAAP
Cabinet SecretaryMatthew Q. Christiansen, MD, MPH
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: June 14, 2024

SUBJECT: Town of Glasgow
Preliminary Application **Project No.: 2024S-2566**
Sewer Line Upgrade/Replacement
Kanawha County

RECOMMENDATION:

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

PROJECT SCOPE:

This project is intended to reduce the I&I of stormwater entering the sanitary sewer system and will consist of the rehabilitation of 10-existing manholes, removal & replacement of 7-manholes, removal & replacement of approximately 1,050 LF of 6" & 8" sanitary sewers, CIPP lining of approximately 1,750 LF of existing 6" & 8" sanitary sewers, installation of approximately 1,950 LF of sewer service laterals, installation of 5-stormwater manholes, installation of 8-catch basins and CIPP lining of approximately 799 LF of 12" stormwater sewers.

The cost per customer is \$7,333. Total estimated project cost is \$2,163,345 (CWSRF Principal Forgiveness: \$1,081,672.50; IJDC District 2 Grant: \$1,000,000; and Local/City/Council: \$81,672).

NEED FOR PROJECT:

The Preliminary Engineering Report indicates the sanitary sewer system in the Town of Glasgow has high I&I and this project should reduce the I&I.

CONCERNS:

None.

PERMITS:

A permit **will not be** required from the WV Bureau for Public Health prior to construction.





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MEMORANDUM

TO: Katheryn Emery, P.E., Engineer Chief

FROM: Michael King, P.E., DWWM

DATE: June 14, 2024

SUBJECT: Town of Glasgow
Preliminary Application: IJDC No. 2024S-2566
Town of Glasgow Wastewater System Improvement Project

RECOMMENDATION

The IJDC Application and Preliminary Engineering Report prepared by New River Engineering has been reviewed and is technically feasible.

PROJECT DESCRIPTION

The Town of Glasgow is located in Kanawha County, West Virginia, and has a population of 771. The Town provides wastewater collection and treatment services to approximately 295 customers. Glasgow's wastewater collection system is composed of approximately 3 miles of 6" to 10" gravity sewer lines, 44 manholes, two (2) lift stations, five (5) cleanouts, and approximately 0.45 miles of 2" force mains. The wastewater treatment facility consists of two (2) clarifiers, two (2) chlorination chambers, one (1) oxidation ditch, and one (1) aerated digester. The total treatment capacity of Glasgow's wastewater system is 300,000 gallons per day (GPD). The Town's wastewater system is permitted under NPDES No. WV0020265 to discharge into the Kanawha River.

The proposed project will perform the following on the Town of Glasgow's wastewater system:

- Rehabilitation of 10 manholes
- Replacement of 7 manholes
- Replacement of 7 manhole frames and covers
- Replacement of 400 LF of 6" gravity sewer
- Replacement of 650 LF of 8" gravity sewer
- Lining of 1,250 LF of 8" gravity sewer

- Lining of 500 LF of 6” gravity sewer
- Installation of 1950 LF of sewer service lateral
- Point repair on gravity sewer line
- Installation of 5 storm manholes
- Replacement / Installation of 8 catch basins
- Lining of 700 LF of 12” storm sewer line
- 3,000 LF of asphalt for street replacement

The proposed total cost for this project is \$2,163,345, and the Town intends to pursue a \$1,081,672 CWSRF Principal Forgiveness Loan, \$1,000,000 in WVIJDC Grant, and \$81,673 of Glasgow ARPA Funds.

NEED FOR PROJECT

The Town of Glasgow experiences excessive amounts of infiltration and inflow into its sanitary sewer system. The high flows increase pump run times and wear on the treatment plant equipment. The I/I also reduces the treatment efficiency of the clarifiers and disinfection system by diluting the mixed liquor in the treatment basin. This all reduces the quality of the effluent discharged into the receiving stream, which has resulted in the issuance of Order No. 8534 by the WVDEP, as well as several notices of violation by the WVDEP and USEPA.

Also, the town experiences sewer backups and overflows in the lower elevation residential areas. As the beginning part of this first phase, a Sanitary Sewer Evaluation Study (SSES) was performed on approximately 15% of the existing collection system. Continuing this study on the remaining portion of the town is part of the PER. The collection system is believed to have been built between the 1930’s and 1950’s and consists of Vitrified Clay Pipe (VCP) and brick manholes.

DEFICIENCIES/COMMENTS

- There are some inconsistencies regarding whether a public meeting has actually been held to this point.
- The PER will need to be developed into a facilities plan that meets CWSRF requirements if CWSRF is used.
- Using the Combined Application, the Engineering Fees are not within the ASCE curve.

Preliminary Project Ratings:

Public Health Benefits: 15
 Compliance with Standards: 20

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



June 11, 2024

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. 2024S-2566
Town of Glasgow, sewer system improvements
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 Technical Staff's comments enclosed herewith, we are recommending the application be:

- Forward the Application
- Return the Application
- Returned to the Applicant

Please advise if you have any questions.

Sincerely,

Jonathan M Fowler
Jonathan M. Fowler, P.E.
Engineering Division

Enclosures
JMF:vb

**PUBLIC SERVICE COMMISSION STAFF
TECHNICAL REVIEW**

DATE: June 11, 2024

PROJECT SPONSOR: TOWN OF GLASGOW (SEWER)

PROJECT SUMMARY: The proposed project is intended to reduce the inflow and infiltration in the sanitary sewer system.

PROPOSED FUNDING: CWSRF Principal Forgiveness	\$1,081,672
IJDC District 2 Grant	\$1,000,000
Town of Glasgow ARPA Grant	<u>\$ 81,673</u>
Total	<u>\$2,163,345</u>

CURRENT RATES: \$43.93 3,400 gallons
\$51.68 4,000 gallons

PROPOSED RATES: \$82.38 3,400 gallons
\$96.92 4,000 gallons

Application No. 2024S-2566

RECOMMENDATION: forward to the Funding Committee.
 forward to the Consolidation Committee.
 return to the Applicant.

FINANCIAL: Stephen Edens

1. Current rates (\$43.93 for 3,400 gallons) are below the rates attributable to 1.25% (\$51.47), 1.5% (\$61.77), 1.75% (\$72.06), and 2.0% (\$82.35) 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 \$72,140, \$170,621, \$269,101, and \$367,582 respectively.
2. Using Scenario 1, the preferred funding package consisting of a CWSRF Principal Forgiveness of \$1,081,672, a \$1,000,000 IJDC District 2 Grant, and a Town of Glasgow ARPA Grant of \$81,673, proposed rates (\$82.38 for 3,400 gallons) will provide a cash flow surplus of \$27,286.

3. Using the Scenario 2 alternate loan package of \$2,081,672 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), and committed funds consisting of an ARPA Grant of \$81,673, proposed rates (\$112.37 for 3,400 gallons) will provide a cash flow surplus of \$7,676 and debt service coverage of 154.43%.

4. 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, 2023, and the applicant's Rule 42 Cash Flow Exhibit submitted with the application.

D. Staff notes the Applicant is requesting a waiver of Rule 42 Exhibit requirement.

E. Staff notes the applicant's Cash flow Analysis reflects going level rates of \$82.38 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 Town of Glasgow 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 may not require a Certificate of Convenience and Necessity from the PSC. The project sponsor should consult with Commission Staff pursuant to the requirements of General Order No. 246 for such determination. Should a Certificate be required, the 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 Town of Glasgow (Glasgow) is proposing to make upgrades and improvements to its existing sewer system. The scope of the proposed project includes: 650 LF of 8-inch PVC gravity sewer pipe, 400 LF of 6-inch PVC gravity sewer pipe, 1,250 LF of 8-inch gravity sewer pipe lining, 500 LF of 6-inch gravity sewer pipe lining, 1,950 LF of 4-inch PVC sewer laterals, 83 sewer service reconnections, 83 "inserta" tee lateral connections, 1 point repair on existing sewer line, replace manhole steps at 5 manholes, replace 7 manholes, 20 VF for manhole extra depth, replacement of 7 manhole frames and covers, "spincoat" 10 manholes, lining 700 LF of existing 12-inch storm sewer, installation of 5 storm manholes, installation of 8 catch basins, 50 TN of special fill, 3,000 LF of WVDOH Type B Trench repair, and other appurtenances. The estimated construction cost is \$1,634,545 (includes 10.0% construction contingency), and the estimated total project cost is \$2,163,345 (includes 8.47% project contingency).

Need: The PER states that Glasgow is currently experiencing excessive amounts of infiltration and inflow (I&I) into its existing sewer collection system, with wet weather flows 6-7 times greater than the average of daily flows. The PER indicates that deteriorated storm sewer and sanitary sewer pipes, brick manholes, and storm inlets may be contributing to the I&I issues. Additionally, Glasgow has also received WVDEP and USEPA compliance violations. The proposed project scope will address 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 \$2,163,345, and having approximately 295 customers (reference 2022 Annual Report), the cost per customer will be approximately \$7,333. However, the cost per customer in terms of proposed borrowing is \$0, as the proposed funding is 100% 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) alternates: #1 – No Action Plan, #2 – Conventional Dig Option, and #3 – Lining Project with Replacement. The PER states Alternate #3 was selected, as the PER indicates the proposed scope includes improvements that should address some of the I&I issues.
5. Consolidation: There are no reasonable consolidation opportunities presented by this small system upgrade project. However, this utility may wish to consider the advantages of merging with a nearby public sewer utility to improve operational efficiency and better control costs over the long term.
6. Operation and Maintenance (O&M) Expenses: Supporting calculations or a detailed discussion of changes to O&M expenses were not included in the PER. However, the IJDC Application indicates an increase of \$77,896 for O&M.
7. 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 \$390,000, which is equal to 23.86% of the construction cost of \$1,634,545 (includes 10.0% construction contingency).

8. Deficiencies/Comments:

- It is unclear why an increase of \$77,896 for Operation and Maintenance Budget + Admin. Fee is noted in the IJDC Application when the PER does not discuss a need for additional O&M costs.
- The PER states that Glasgow has “reallocated” some employees’ wages to the sewer department and some positions have increased wages to attract new employees and retain existing employees. Based upon the Application, it appears reallocated wages may be one of the reasons for the large projected increase in rates (rates are projected to nearly double - from \$43.93 to \$82.38 for 3,400 gallons/month). Over time, these rates coupled with future increases may not be sustainable in this relatively low-income area.
- Glasgow has a very small customer base (less than 300 customers) and a declining population and is operating an old and deteriorated sewer system. The costs to maintain this old system will inevitably increase in the future leading to ever-higher rates. To mitigate this, we strongly recommend that the applicant explore consolidation with nearby utilities in order to ensure the long-term viability of this utility and help moderate user rates.

TOWN OF GLASGOW
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2023
 APPLICATION NO: 2024S-2566
 June 11, 2024

**PREFERRED FUNDING PACKAGE
 SCENARIO 1**

	Cash Flow Going Level Per Application Before Project	Cash Flow Proforma Per Application with Project	Staff Adjustments	Per Staff Analysis
	1	2	3	4
	\$	\$	\$	\$
AVAILABLE CASH				
Operating Revenues	349,761	349,761	(35,975) (1)	313,786
Other Operating Revenue	5,894	5,894	-	5,894
SB 234 Annual Working Cash Collections			35,975 (2)	35,975
Interest Income & Other Misc.			-	-
Total Cash Available	355,655	355,655	-	355,655
OPERATING DEDUCTIONS				
Operating Expenses	287,803	287,803	-	287,803
Taxes	4,591	4,591	-	4,591
Total Cash Requirements Before Debt Service	292,394	292,394	-	292,394
Cash Available for Debt Service (A)	63,261	63,261	-	63,261
DEBT SERVICE REQUIREMENTS				
Principal & Interest (B)			-	-
Other Debt			-	-
Reserve Account @ 10%			-	-
Renewal & Replacement Fund (2.5%)	8,891	8,891	(8,891) (3)	-
Total Debt Service Requirement	8,891	8,891	(8,891)	-
SB 234 Cash Working Capital	35,975	35,975	-	35,975
Remaining Cash	18,395	18,395	8,891	27,286
Percent Coverage (A) / (B)				
Average rate for 3,400 gallons	\$ 82.38	\$ 82.38	\$ -	\$ 82.38
Average rate for 4,000 gallons	\$ 96.92	\$ 96.92	\$ -	\$ 96.92

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	313,786	(35,975)
		Per Application with Project	349,761	
	Adjust revenues in accordance with PSC General Order 183.11.			
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis	35,975	35,975
		Per Application with Project	-	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	-	(8,891)
		Per Application with Project	8,891	
	To remove since no outstanding bonds.			

TOWN OF GLASGOW
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2023
 APPLICATION NO: 2024S-2566
 June 11, 2024

**LOAN PACKAGE
 SCENARIO 2**

	Max Rate Going Level Per Application Before Project	Max Rate Proforma Per Application with Project	Staff Adjustments	Per Staff Analysis
	1	2	3	4
	\$	\$	\$	\$
AVAILABLE CASH				
Operating Revenues	349,761	477,077	(35,975) (1)	441,102
Other Operating Revenue	5,894	5,894	-	5,894
SB 234 Annual Working Cash Collections			35,975 (2)	35,975
Interest Income & Other Misc.			-	-
Total Cash Available	355,655	482,971	-	482,971
OPERATING DEDUCTIONS				
Operating Expenses	287,803	287,803	-	287,803
Taxes	4,591	4,591	-	4,591
Total Cash Requirements Before Debt Service	292,394	292,394	-	292,394
Cash Available for Debt Service (A)	63,261	190,577	-	190,577
DEBT SERVICE REQUIREMENTS				
Principal & Interest (B)		124,099	(689) (3)	123,410
Other Debt			-	-
Reserve Account @ 10%			12,341 (4)	12,341
Renewal & Replacement Fund (2.5%)	8,891	12,074	(899) (5)	11,175
Total Debt Service Requirement	8,891	136,173	10,753	146,926
SB 234 Cash Working Capital	35,975	35,975	-	35,975
Remaining Cash	18,395	18,429	(10,753)	7,676
Percent Coverage (A) / (B)		153.57%		154.43%
Average rate for 3,400 gallons	\$ 82.38	\$ 112.37	\$ -	\$ 112.37
Average rate for 4,000 gallons	\$ 96.92	\$ 132.20	\$ -	\$ 132.20

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	441,102	(35,975)
		Per Application with Project	477,077	
	Adjust revenues in accordance with PSC General Order 183.11.			
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis	35,975	35,975
		Per Application with Project	-	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	Principal & Interest	Per Staff Analysis	123,410	(689)
		Per Application with Project	124,099	
	The difference in P&I is related to Staff's calculation of a loan of \$2,081,672 for 40 years (paid back over 38 years) at 5%.			
(4)	Reserve Account @ 10%	Per Staff Analysis	12,341	12,341
		Per Application with Project	-	
	Staff assumed a 10% reserve on the new debt.			
(5)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	11,175	(899)
		Per Application with Project	12,074	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			