



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
Meredith J. Vance, Director, Environmental Engineering Division, BPH

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

Date: October 22, 2024

Subject: Town of Elizabeth
Preliminary Application: IJDC No. 2024W-2596
Water System Improvements Phase III Project

-
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 water 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:

This project proposes to extend service to approximately 26 customers along the Three Bridges Road. In addition, this project will provide a hydraulic loop to increase turnover in the system.

The proposed total cost for this project is \$2,090,000 and the City intends to pursue a \$1,185,000 ARC Grant, a \$1,000,000 DWTRF Principal Forgiveness Loan, and a \$500,000 IJDC Grant.

Using the Combined Application, the Total Engineering Fee and the Design Fee appear to be within the ASCE curve.

Preliminary Project Ratings:

Public Health Benefits: 5
Compliance with Standards: 0



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MEMORANDUM

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

FROM: Spencer Fultineer, DWWM

DATE: October 2, 2024

SUBJECT: Town of Elizabeth
Preliminary Application: IJDC No. 2024W-2596
Water System Improvements Phase III Project

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 Town of Elizabeth owns and operates an existing water distribution system operating under Public Water System Identification number (PWSID#) WV3305302 that serves approximately 988 customers in Wirt County, WV.

This project proposes to extend service to approximately 26 customers along the Three Bridges Road between connection points of existing 6” waterlines. This will allow the system to form a hydraulic loop to increase turnover and reduce head loss. This will be accomplished by installing 6” waterline and necessary appurtenances primarily in WVDOH ROW.

The proposed total cost for this project is \$2,090,000 and the City intends to pursue a \$1,185,000.00 ARC Grant, a \$1,000,000 DWTRF Principal Forgiveness Loan, and a \$500,000 IJDC Grant.

The proposed 3,400 gallon rate is \$64.03.

NEED FOR PROJECT

The project will extend public water service to communities currently without access to such service. These residents currently rely on individual well systems. The quality of the well water is unknown, but the lack of water treatment leaves the residents at risk of contamination. This project is also designed to help fix the system's problem of slow turnover and lower chlorine residuals in the southern part of the system. This extension will result in a hydraulic loop that can connect the existing water lines to reduce this problem.

DEFICIENCIES/COMMENTS

- Using the Combined Application, the Total Engineering Fee and the Design Fee appear to be within the ASCE curve.
- The PER should include information on the purchase agreements between the Town of Elizabeth and the Claywood Park PSD and Mineral Wells PSD.
- Include the map of the existing system.

Preliminary Project Ratings:

Public Health Benefits: 5
Compliance with Standards: 0

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



October 18, 2024

Meredith J. Vance
Office of Environmental Health Services
350 Capitol Street, Room 313
Charleston, West Virginia 25301-3713

Re: Public Service Commission Staff Review Comments
Application No. 2024W-2596
Town of Elizabeth – Water System Improvements
Infrastructure Preliminary Application

Dear Ms. Vance:

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:

forwarded to the Funding Committee

forwarded to the Consolidation Committee

returned to the Applicant

Please advise if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Jonathan M. Fowler".

Jonathan M. Fowler, P.E.
Engineering Division

Enclosures
JMF:vb

**PUBLIC SERVICE COMMISSION STAFF
TECHNICAL REVIEW**

DATE: October 17, 2024

PROJECT SPONSOR: TOWN OF ELIZABETH - WATER

PROJECT SUMMARY: Water system extension along Rt. 14 South and Three Bridges Road to provide a loop connection at the south end of the Town's Water System.

PROPOSED FUNDING: IJDC District 2 Grant	\$ 500,000
DWTRF Principal Forgiveness	\$1,000,000
ARC Grant	<u>\$1,185,000</u>
Total	\$2,685,000

CURRENT/PROPOSED

RATES:	\$64.03	3,400 gallons
	\$74.82	4,000 gallons

Application No. 2024W-2596

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

FINANCIAL: Bob Cadle

1. Current rates (\$64.03 for 3,400 gallons) are above the rates attributable to 1.25% (\$24.06), 1.5% (\$28.87), 1.75% (\$33.68), and 2% (\$38.50) of the Median Household Income (MHI).
2. Using Scenario 1, the preferred funding package consisting of IJDC District 2 Grant of \$500,000, a DWTRF Principal Forgiveness Loan of \$1,000,000, and an ARC Grant of \$1,185,000, proposed rates (\$64.03 for 3,400 gallons) will provide a cash flow surplus of \$69,767 and debt service coverage of 193.90%. Note: Staff corrected the current rate based on the Town's current tariff.
3. Using the Scenario 2 alternate loan package of \$2,685,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), proposed rates (\$74.29 for 3,400 gallons) will provide a cash flow

surplus of \$50,672 and debt service coverage of 148.23%.

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. 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 Cash Flow Analysis submitted with the application.
- C. Staff used the MHI for the Town of Elizabeth of \$23,098 from the 2020 U.S. Census versus the MHI of \$45,315 that was listed in the application.
- D. Staff notes the Applicant is requesting a waiver of Rule 42 Exhibit requirement.
- E. 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.
- F. 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.
- G. The Town 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.

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 Elizabeth is proposing a waterline extension to provide water service to approximately 26 customers. The proposed project scope includes: 22,000 LF of 6-inch waterline, 390 LF of 3/4-inch polyethylene service tubing, 350 LF of 12-inch steel casing (bore & jack), 26 meter settings, thirty (30) 6-inch gate valve (complete with box and lid), 20 fire hydrant assemblies, 4 tie-ins to existing 6-inch water mains, eleven (11) 1-inch air release valves, 270 LF of gravel driveway repair, 3,500 LF of WVDOH Type "B" Trench Repair, 17,800 LF of reclamation of disturbed areas, and all necessary appurtenances. The estimated construction cost is \$2,090,000 (includes 10.02%), and the estimated total project cost is \$2,685,000 (includes 2.23% project contingency).

Need: The PER states that this waterline project proposes to extend potable water service to residents who presumably rely on well water. Additionally, the southern expansion has created a slow turnover and lower chlorine residuals in the southern portion of the system. The proposed project will create a hydraulic loop, which will increase the turnover in the system.

Customer Density: Based upon the provided water main pipe quantities (22,000 LF), the proposed water line extension totals approximately 4.17 miles. This is approximately equivalent to 6 new customers per mile of waterline extension; this is low.

Cost per Customer: Based upon the estimated total project cost is \$2,685,000, and having approximately 1,014 (988 [existing] + 26 [new]) customers, the cost per customer will be approximately \$2,648. The cost per customer in terms of proposed borrowing is \$0, as the proposed funding is 100% grant. The cost to serve each new customer is approximately \$103,269; this is high.

3. **Project Feasibility:** The project scope appears to be technically feasible and poses little technical risk.

4. Project Alternatives: The PER evaluated five (5) alternates: #1 – Lynn Camp Road Waterline Extension, #2 – Rose Hill Road Waterline Extension, #3 – Standing Stone Road Waterline Extension, #4 – Three Bridges Road Waterline Extension, #5 – Wilson Fork Road Waterline Extension, and #6 – Do Nothing. The PER states Alternate #4 was recommended based on a decision matrix, which evaluated turnover effects, ability for future waterline extensions, requirement for additional water storage, and costs per customer.
5. Consolidation: There are no consolidation opportunities presented by this project.
6. Operation and Maintenance (O&M) Expenses: The PER states that O&M costs are anticipated to be approximately \$4,782.94 annually. These costs are attributed to purchased water, purchased power, administrative, etc.
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 \$405,000, which is equal to 19.38% of the construction cost of \$2,090,000 (includes 10.02% construction contingency). Engineering Design costs for the project are \$150,000, which is equal to 7.18% of the construction cost of \$2,090,000 (includes 10.02% construction contingency).

TOWN OF ELIZABETH - WATER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2023
 APPLICATION NO: 2024W-2596
 October 18, 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
	\$	\$	\$	\$
<u>AVAILABLE CASH</u>				
Operating Revenues	715,127	731,265	(55,950) (1)	675,315
Other Operating Revenue	42,661	42,661	-	42,661
SB 234 Annual Working Cash Collections			55,950 (2)	55,950
Interest Income & Other Misc.	5,762	5,762	-	5,762
Total Cash Available	<u>763,550</u>	<u>779,688</u>	<u>-</u>	<u>779,688</u>
<u>OPERATING DEDUCTIONS</u>				
Operating Expenses	442,181	447,600	-	447,600
Taxes	9,621	9,621	-	9,621
Total Cash Requirements Before Debt Service	<u>451,802</u>	<u>457,221</u>	<u>-</u>	<u>457,221</u>
Cash Available for Debt Servi (A)	<u>311,748</u>	<u>322,467</u>	<u>-</u>	<u>322,467</u>
<u>DEBT SERVICE REQUIREMENTS</u>				
Principal & Interest (B)	166,310	166,310	-	166,310
Other Debt	-	-	-	-
Reserve Account @ 10%	12,490	12,490	-	12,490
Renewal & Replacement Fund (2.5%	16,623	19,492	(1,543) (3)	17,949
Total Debt Service Requirement	<u>195,423</u>	<u>198,292</u>	<u>(1,543)</u>	<u>196,749</u>
SB 234 Cash Working Capital	55,273	55,950	-	55,950
Remaining Cash	<u>61,052</u>	<u>68,225</u>	<u>1,543</u>	<u>69,767</u>
Percent Coverage (A) / (B)	187.45%	193.90%		193.90%
Average rate for 3,400 gallons	\$ 64.03	\$ 64.03	\$ -	\$ 64.03
Average rate for 4,000 gallons	\$ 74.82	\$ 74.82	\$ -	\$ 74.82

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	675,315	(55,950)
		Per Application with Project	731,265	
	Adjust revenues in accordance with PSC General Order 183.11.			
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis	55,950	55,950
		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	17,949	(1,543)
		Per Application with Project	19,492	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			

TOWN OF ELIZABETH - WATER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2023
 APPLICATION NO: 2024W-2596
 October 18, 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
	\$	\$	\$	\$
<u>AVAILABLE CASH</u>				
Operating Revenues	715,127	891,265	(55,950) (1)	835,315
Other Operating Revenue	42,661	42,661	-	42,661
SB 234 Annual Working Cash Collections			55,950 (2)	55,950
Interest Income & Other Misc.	5,762	5,762	-	5,762
Total Cash Available	<u>763,550</u>	<u>939,688</u>	<u>-</u>	<u>939,688</u>
<u>OPERATING DEDUCTIONS</u>				
Operating Expenses	442,181	447,600	-	447,600
Taxes	9,621	9,621	-	9,621
Total Cash Requirements Before Debt Service	<u>451,802</u>	<u>457,221</u>	<u>-</u>	<u>457,221</u>
Cash Available for Debt Servi (A)	<u>311,748</u>	<u>482,467</u>	<u>-</u>	<u>482,467</u>
<u>DEBT SERVICE REQUIREMENTS</u>				
Principal & Interest (B)	166,310	321,674	3,814 (3)	325,488
Other Debt	-	-	-	-
Reserve Account @ 10%	12,490	12,490	15,918 (4)	28,408
Renewal & Replacement Fund (2.5%	16,623	23,492	(1,543) (5)	21,949
Total Debt Service Requirement	<u>195,423</u>	<u>357,656</u>	<u>18,189</u>	<u>375,845</u>
SB 234 Cash Working Capital	55,273	55,950	-	55,950
Remaining Cash	<u>61,052</u>	<u>68,861</u>	<u>(18,189)</u>	<u>50,672</u>
Percent Coverage (A) / (B)	187.45%	149.99%		148.23%
Average rate for 3,400 gallons	\$ 64.03	\$ 74.29	\$ -	\$ 74.29
Average rate for 4,000 gallons	\$ 74.82	\$ 86.81	\$ -	\$ 86.81

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	835,315	(55,950)
		Per Application with Project	891,265	
	Adjust revenues in accordance with PSC General Order 183.11.			
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis	55,950	55,950
		Per Application with Project	-	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	Principal & Interest	Per Staff Analysis	325,488	3,814
		Per Application with Project	321,674	
	The difference in P&I is related to Staff's calculation of a loan of \$2,685,000 for 40 years (paid back over 38 years) at 5%.			
(4)	Reserve Account @ 10%	Per Staff Analysis	28,408	15,918
		Per Application with Project	12,490	
	Staff assumed a 10% reserve on the new debt.			
(5)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	21,949	(1,543)
		Per Application with Project	23,492	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			



west virginia department of environmental protection

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MEMORANDUM

MEMORANDUM

MEMO TO: Meredith J. Vance
Office of Environmental Health Services
Bureau for Public Health

FROM: Brian D. Bailey *BS*
Technical Analyst
General Permits & Support Team

DATE: September 25, 2024

SUBJECT: Infrastructure Preliminary Application for the Town of Elizabeth (2024W-2596):
Water System Improvements Phase III in Wirt County, WV.

We have reviewed the above referenced project application information. The Town of Elizabeth purchases water from Claywood Park PSD. No NPDES permit modifications are necessary.

If the Town of Elizabeth is considering repairing and painting an existing water treatment plant or storage tanks, then the scope of this project requires precautions to prevent contamination of the waters of the state. Prior to beginning any removal of old paint, the Town of Elizabeth should contact Mr. Brad Wright or a member of his staff at (304)-926-0499, extension 49746 for guidance in determining whether the paint to be removed is considered a hazardous waste. If so, proper containment and disposal procedures must be followed for the paint and any material associated with the sandblasting. If it is determined that the paint is not hazardous, the Town of Elizabeth should contact John Lockhart or a member of his staff at (304)-926-0499, extension 43889 for proper disposal options.

Construction activities with a disturbed area of one (1) acre or greater are now required to register for the NPDES Storm Water Construction General Permit No. WV0115924 that became

Promoting a healthy environment.

effective on April 6, 2024. Projects registered under the previous General Permit No. WV0115100 were automatically provided coverage under WV/NPDES General Permit No. WV0115924. For more information, they may contact Larry Board at (304)-926-0499, extension 43883.

In light of the above, we have no objection to this project as long as the appropriate provisions are taken to assure compliance with Chapter 22, Article 11, of the Code of West Virginia and any associated regulations. The responsible party may contact Mylinda Maddox (304) 926-0499 ext. 43825, should additional information be required.

BDB:mam

cc: Katheryn Emery