



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: June 18, 2025

Subject: Town of Elizabeth
IJDC Application - 2025S-2670
Wastewater System Improvements Phase IV

-
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.

Promoting a healthy environment.

- 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 proposed project should be tabled until the July 2025 funding committee meeting. This will allow time for the consultant to review the technical concerns.



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MEMORANDUM

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

FROM: Chantz Rankin, E.I., DWWM

DATE: June 6, 2025

SUBJECT: Town of Elizabeth
IJDC Application - 2025S-2670
Wastewater System Improvements Phase IV

RECOMMENDATION

The IJDC Application and Preliminary Engineering Report (PER) prepared by The Thrasher Group, Inc. for the above referenced project has been reviewed and should be tabled to the July 2025 funding/technical meeting.

PROJECT DESCRIPTION

The Town of Elizabeth (Town) owns and operates a wastewater collection system and wastewater treatment plant (WWTP) under National Pollutant Discharge Elimination System (NPDES) Permit #WV0041505 in Wirt County, West Virginia. The Town serves approximately 434 existing customers. The Town's collection system consists of approximately 34 miles of gravity sewer line, two (2) lift stations, approximately 4,200 linear feet (LF) of force mains, and other necessary appurtenances. The collection system also includes one unpermitted sanitary sewer overflow, located at the Little Kanawha Lift Station. The Town's WWTP is an extended aeration system that is permitted to treat and discharge up to 150,000 gallons per day (GPD).

This project proposes to construct a detention basin adjacent to the Little Kanawha lift station to retain excess inflows into the lift station. The basin would incorporate a sloped floor set above the floor of the pumped station wet well, which will allow the basin to drain into the pump station by gravity. The drain piping to the pump station will include valving that can be opened

or closed during certain weather events. It is estimated that site could contain a basin capable of storing up to 850,000 gallons. The exact dimensions of the detention basin would be determined after an extended flow monitoring study of the lift station. The proposed project will also require the rerouting of the existing gravity sewers into the pump station.

The proposed total cost for this project is \$3,000,000 and the Town intends to pursue a \$1,000,000 WVIJDC Grant, and a \$2,000,000 CWSRF Principal Forgiveness Loan. The proposed monthly rate for 3,400 gallons would be \$56.98 (1.51% MHI).

NEED FOR PROJECT

The Town of Elizabeth has undergone several projects in the last several years. In 2016 the Town's original plant consisting of three lagoons was replaced with an extended aeration system. After the project's completion, it was determined that the inflows into the WWTP were greater than what had previously been recorded, leading to the WWTP to experience significant fluctuations in flow between dry and wet weather periods.

In 2018, the Town conducted an Inflow and Infiltration (I&I) study of the wastewater collection system. This study prompted a project in 2020, which replaced the aging gravity sewer near Prunty, Franklin, and Washington Streets; removal of the abandoned lagoons; and made improvements to the Town's pump stations. The Town also began the design phase of another I&I reduction project, which will replace approximately 4,200 LF of gravity sewer and construct approximately 1,500 LF of new storm sewers in the Town.

The Town has received multiple Notice of Violations (NOVs), which include exceeding discharge limitations; failing to submit Industrial User logs quarterly; failing to submit quarterly Inflow and Infiltration Reports; having an unpermitted discharge point, failing to submit Sludge Management Report; failing to submit Sludge Monitoring Reports; failing to properly operate and maintain the wastewater treatment plant; failing to submit Total Recoverable Copper Results once a month; and failing to submit five-day spill response for its reported spills. As a result to the list of NOVs, the Town as issued Consent Order #10238 by the WVDEP on December 20, 2023. The Town responded by submitting a Plan of Corrective action (POCA) in February of 2024. By the time the POCA was approved the Town had addressed all of its deficiencies, except for its unpermitted discharge from the Little Kanawha Pump Station.

The proposed project anticipates the elimination of the SSO, which is currently discharging into the Little Kanawha River. By eliminating the SSO this project will provide public health benefits to the Town, as well as the communities downstream of the Town.

DEFICIENCIES/COMMENTS

- A Sanitary Sewer Evaluation Study should be incorporated as part of this project's scope. Thrasher indicated smoke testing has been performed in the Town but additional information

on determining the scope of the project should be included. The Primary Engineer was not available and requested that they have more time to answer these questions.

- The analysis of non monetary factors in the choice of alternative states that Alternative #2, which is a lift station upgrade; is riskier until the proposed flow monitoring study at the little Kanawha lift station is complete. The concern is that the WWTP may not have the sufficient reserve capacity to handle the flows from the pump station if the discharge is removed. Before either alternative is selected a flow study should be performed to actually determine whether or not a detention basin is the best course of action or if another alternative is more viable.
- Using the Combined Application, the Design, and Total Engineering Fees appear to be above the ASCE Curves.

Preliminary Project Ratings:

Public Health Benefits: 10

Compliance with Standards: 20



Arvin Singh, EdD, MBA, MS, FACHE
Secretary of Health

Jason R. Frame
OEHS Director

MEMORANDUM

TO: Meredith J. Vance, Director
Environmental Engineering Division

FROM: Patrick Murphy, P.E.
Environmental Engineering Division

DATE: June 9, 2025

SUBJECT: Town of Elizabeth
IJDC Application- **2025S-2670**
Wastewater System Improvements Phase 4
Wirt County

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

Project Scope: The project proposes to construct a detention basin at the Little Kanawha Lift Station; rerouting existing gravity sewers flowing into the pump station as well as an expansion of the sites fencing to enclose the entire facility.

The total project cost is **\$3,000,000.00**

Need for the Project: The need for this project is to satisfy the notice of violations detailed in Consent Order #10238 issued to the Town of Elizabeth by the WV Department of Environmental Protection.

Concerns: No concerns were noted.

Permits: Permits expected to be required include: WVDEP NPDES, WVDEP Construction Stormwater; US Army Corps of Engineers and WV Department of Health.



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, 2025

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. 2025S-2670
Elizabeth, Town of – 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:

- Forwarded to the Funding Committee
- Forwarded to the Consolidation Committee
- Tabled to allow the Applicant time to respond to comments

Please advise if you have any questions.

Sincerely,

Brandon Crace

Brandon Crace
Engineering Division

Enclosures
BC:vb

**PUBLIC SERVICE COMMISSION STAFF
TECHNICAL REVIEW**

DATE: June 6, 2025

PROJECT SPONSOR: TOWN OF ELIZABETH - SEWER

PROJECT SUMMARY: The Town of Elizabeth is proposing to construct a concrete detention basin prior to its Little Kanawha Lift Station to capture high flow scenarios and prevent overflows at the existing lift station.

PROPOSED FUNDING: IJDC District 2 Grant	\$1,000,000
CWSRF Principal Forgiveness	<u>\$2,000,000</u>
Total	<u>\$3,000,000</u>

CURRENT/ PROPOSED RATES:	\$56.98	3,400 gallons
	\$67.04	4,000 gallons

Application No. 2025S-2670

RECOMMENDATION: forward to the Funding Committee.
 forward to the Consolidation Committee.
 tabled to allow Applicant to respond to comments.

FINANCIAL: Stephen Edens

1. Current rates (\$56.98 for 3,400 gallons) are above the rate attributable to 1.25% (\$24.06), 1.5% (\$28.87), 1.75% (\$33.68) and 2.0% (\$38.50) of the Median Household Income.
2. Using Scenario 1, the preferred funding package consisting of an IJDC District 2 Grant of \$1,000,000 and a \$2,000,000 CWSRF Principal Forgiveness, current/proposed rates (\$56.98 for 3,400 gallons) will provide a cash flow surplus of \$2,578 and debt service coverage of 145.94%.
3. Using the Scenario 2 alternate loan package of \$3,000,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), proposed rates (\$82.45 for 3,400 gallons) will provide a cash flow deficit of \$19,233 and debt service coverage of 118.91%. An additional 3.4% (for a total of \$85.25 for 3,400 gallons) increase in proposed rates will be required in order to provide a cash flow surplus of \$267 and debt service coverage of 125.56%.

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, 2024, and the applicant's Cash Flow Exhibit submitted with the application.
- D. It should be noted that the Town's current rates (\$56.98 for 3,400 gallons) became effective for service rendered on and after July 8, 2024. The cash flow provided by the project sponsor made a going level adjustment for this increase.
- E. Staff notes the Applicant is requesting a waiver of Rule 42 Exhibit requirement.
- 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 Elizabeth 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. Pursuant to House Bill 2742 passed in the 2025 Legislative Session, this project will not require a Certificate of Convenience and Necessity from the PSC.
2. Scope: The Town of Elizabeth (Elizabeth) is proposing to construct a concrete detention basin prior to its Little Kanawha Lift Station to capture high flow scenarios and prevent overflows at the existing lift station. The proposed project scope includes: a 70x90'x20' (735 CY) concrete detention basin, 6000 CY excavation (with shoring), stairs and handrails, lift station site piping, cut/cap/fill lift station overflow piping, 50000 SF of ground restoration, 500 LF chain-link fence, erosion and sediment controls, project area video recording, mobilization, and all necessary appurtenances. The estimated construction cost is \$2,300,000 (includes 9.92% construction contingency), and the estimated total project cost is \$3,000,000 (includes 2.94% project contingency).

Need: The PER indicates that in December 2023, the WVDEP issued Consent Order #10238 to Elizabeth, which referred to five (5) Notices of Violation. The Consent Order directs Elizabeth to submit a Plan of Corrective Action (POCA). This proposed scope of work will address the final deficiency by eliminating the unpermitted overflow at the Little Kanawha Lift Station.

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

Cost per Customer: Based upon the estimated total project cost is \$3,000,000, and having approximately 424 customers, the cost per customer will be approximately \$7,075. However, the proposed project is 100% grant funded; therefore, the proposed borrowing is \$0.

3. Project Feasibility: Although the proposed scope of work is technically feasible and the proposed project scope will remove an unpermitted overflow, the project scope does not identify/rehabilitate/address/eliminate sources of I&I and the Elizabeth WWTP will maintain paying treatment costs associated with the I&I flows

4. Project Alternatives: The PER evaluated three (3) alternates: #1 – Detention Basin, #2 – Lift Station Upgrade, and #3 – Do Nothing. The PER states that Alternate #1 was recommended as this option “...may be far more responsive to the results of the proposed flow monitoring study...”. Additionally, a do-nothing option would result in continued non-compliance with the WVDEP.
5. Consolidation: There are no consolidation opportunities presented by this project.
6. Operation and Maintenance (O&M) Expenses: The PER included a breakdown of changes to O&M, and suggests that costs are estimated to increase by approximately \$51,000 due to the estimated collection, and treatment and disposal costs.
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 \$550,000, which is equal to 23.91% of the construction cost of \$2,300,000 (includes 9.92% construction contingency).
8. Deficiencies/Comments:
 - The proposed project scope will remove the unpermitted overflow at the Little Kanawha Lift Station; however, the project scope does not identify/rehabilitate/address/eliminate sources of I&I and the Elizabeth WWTP will maintain paying treatment costs associated with the I&I flows.
 - The scope of the proposed Flow Study should not be limited to the flow measurement into the Little Kanawha Lift Station, and should be expanded to include the identification of I&I sources in the Little Kanawha portion of the collection system.
 - Following completion of the Flow Study, the Engineer should reassess the Little Kanawha Lift Station pump capacities, and consider lift station and collection system upgrades.
 - Elizabeth could pursue an IJDC PFA Grant to perform an expanded Flow Study and modify the project scope based on the Flow Study findings to reduce I&I flows. *(This would require a 50% match of requested funding.)*
 - The IJDC Application shows an increase in revenue, but there is not a rate increase proposed with this application. The Application was filed with a Rule 42 Waiver (project is 100% grant funded); however, Staff is unable to identify how revenue will increase as shown on the Application.

- The IJDC Application and PER indicates that O&M expenses are expected to increase by approximately \$51,000. Staff is unsure how Elizabeth will fund this increase in O&M. (*see previous comment about revenue*)

TOWN OF ELIZABETH - SEWER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2024
 2025S-2670
 June 11, 2025

**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	408,937	408,937	(31,759) (1)	377,178
Other Operating Revenue	13,915	13,915	-	13,915
SB 234 Annual Working Cash Collections			31,759 (2)	31,759
Interest Income & Other Misc.	13,123	13,123	-	13,123
Total Cash Available	435,975	435,975	-	435,975
OPERATING DEDUCTIONS				
Operating Expenses	254,072	254,072	-	254,072
Taxes	2,715	2,715	-	2,715
Total Cash Requirements Before Debt Service	256,787	256,787	-	256,787
Cash Available for Debt Service (A)	179,188	179,188	-	179,188
DEBT SERVICE REQUIREMENTS				
Principal & Interest (B)	122,781	122,781	-	122,781
Other Debt			-	-
Reserve Account @ 10%	12,293	12,293	-	12,293
Renewal & Replacement Fund (2.5%)	10,899	10,899	(1,122) (3)	9,777
Total Debt Service Requirement	145,973	145,973	(1,122)	144,851
SB 234 Cash Working Capital	31,759	31,759	-	31,759
Remaining Cash	1,456	1,456	1,122	2,578
Percent Coverage (A) / (B)	145.94%	145.94%		145.94%
Average rate for 3,400 gallons	\$ 56.98	\$ 56.98	\$ -	\$ 56.98
Average rate for 4,000 gallons	\$ 67.04	\$ 67.04	\$ -	\$ 67.04

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	377,178	(31,759)
		Per Application with Project	408,937	
Adjust revenues in accordance with PSC General Order 183.11.				
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis	31,759	31,759
		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	9,777	(1,122)
		Per Application with Project	10,899	
Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.				

TOWN OF ELIZABETH - SEWER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2024
 2025S-2670
 June 11, 2025

**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	408,937	587,222	(11,759) (1)	575,463
Other Operating Revenue	13,915	13,915	-	13,915
SB 234 Annual Working Cash Collections			31,759 (2)	31,759
Interest Income & Other Misc.	13,123	13,123	-	13,123
Total Cash Available	435,975	614,260	20,000	634,260
OPERATING DEDUCTIONS				
Operating Expenses	254,072	254,072	-	254,072
Taxes	2,715	2,715	-	2,715
Total Cash Requirements Before Debt Service	256,787	256,787	-	256,787
Cash Available for Debt Service (A)	179,188	357,473	20,000	377,473
DEBT SERVICE REQUIREMENTS				
Principal & Interest (B)	122,781	296,372	4,262 (3)	300,634
Other Debt			-	-
Reserve Account @ 10%	12,293	12,293	17,785 (4)	30,078
Renewal & Replacement Fund (2.5%)	10,899	15,357	(623) (5)	14,734
Total Debt Service Requirement	145,973	324,022	21,424	345,446
SB 234 Cash Working Capital	31,759	31,759	-	31,759
Remaining Cash	1,456	1,692	(1,424)	267
Percent Coverage (A) / (B)	145.94%	120.62%		125.56%
Average rate for 3,400 gallons	\$ 56.98	\$ 82.45	\$ 2.80	\$ 85.25
Average rate for 4,000 gallons	\$ 67.04	\$ 97.01	\$ 3.30	\$ 100.31

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	575,463	(11,759)
		Per Application with Project	587,222	
	Adjust revenues in accordance with PSC General Order 183.11. Staff projected an additional \$20,000 in revenues would be needed to achieve 115% debt coverage and a positive cash balance.			
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis	31,759	31,759
		Per Application with Project	-	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	Principal & Interest	Per Staff Analysis	300,634	4,262
		Per Application with Project	296,372	
	The difference in P&I is related to Staff's calculation of a loan of \$3,000,000 for 40 years (paid back over 38 years) at 5%.			
(4)	Reserve Account @ 10%	Per Staff Analysis	30,078	17,785
		Per Application with Project	12,293	
	Staff assumed a 10% reserve on the new debt.			
(5)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	14,734	(623)
		Per Application with Project	15,357	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			