



west virginia department of environmental protection

Division of Water and Waste Management
601 57th Street, SE
Charleston, WV 25304
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Harold D. Ward, Cabinet Secretary
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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: July 17, 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 August 2025 funding committee meeting. The consultant requested additional time to address the technical concerns.



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MEMORANDUM

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

FROM: Chantz Rankin, E.I., DWWM

DATE: July 15, 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 August 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 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 of the list of NOVs, the Town was 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

Public Service Commission of West Virginia

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

Phone: (304) 340-0300
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July 16, 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 reviewed the above-referenced Infrastructure application. As the Applicant has not yet responded to Technical Staff's June 2025 comments, 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

BC