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west virginia department of environmental protection

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Division of Water and Waste Management  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone: 304-926-0495 / Fax: 304-926-0463

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

**MEMORANDUM**

**To:** Brad Sergent, Chair  
Meredith J. Vance, Director, Environmental Engineering Division, BPH

**From:** Katheryn Emery, P.E., Program Manager  
Sewer Technical Review Committee

**Date:** May 21, 2026

**Subject:** Weirton Area Water Board  
IJDC Application - 2026W-2782  
PFAS Treatment Upgrades 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 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.

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- 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 proposes the installation of eight (8) ion exchange contact vessels, each rated for 1,500 gallons per minute (GPM) and a new building for the treatment of PFAS. This project will allow the Weirton Area Water Board (WAWB) to continue to reliably provide safe potable water to its customers as well as keep in compliance with National Primary Drinking Water Regulations by reducing the levels of PFAS in their treated water.

The total estimated cost for this project is \$11,180,000.00. The WAWB intends to pursue a \$7,180,000 Congressional Directed Spending and a \$4,000,000 DWTRF Emerging Contaminants Grant. The proposed monthly rate will be 58.81 (1.39% MHI for the City of Weirton and 1.44% MHI for Hancock and Brooke Counties) for 3,400 gallons.

A pilot study should be included to properly determine most effective treatment technology.

Preliminary Project Ratings:

Public Health Benefits: 15  
Compliance with Standards: 20



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Harold D. Ward, Cabinet Secretary  
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**MEMORANDUM**

**TO:** Katheryn Emery, P.E., Program Manager, DWWM

**FROM:** Chantz Rankin, E.I., DWWM

**DATE:** May 8, 2026

**SUBJECT:** Weirton Area Water Board  
IJDC Application - 2026W-2782  
PFAS Treatment Upgrades Project

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**RECOMMENDATION**

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

**PROJECT DESCRIPTION**

The Weirton Area Water Board (WAWB) is located in Hancock and Brooke Counties, WV and operates an existing water treatment and distribution system under Public Water System Identification Number (PWSID#) WV3300516. The WAWB currently serves 9,356 total customers, including 8,639 residential customers; 648 commercial customers; 40 industrial customers; 26 public authorities; 3 other customers; Oakland PSD; and Brook PSD. The Weirton water treatment plant (WTP) draws water from two sources; a groundwater well and a raw water intake on the Ohio River. The average daily volume produced by these two sources is 3.36 million gallons per day (MGD). The WTP is designed to treat up to 4.0 MGD and consists of a series of air strippers; two (2) mixers; two (2) clarifiers; four (4) gravity filters that have both sand and granular activated carbon, and 1 clearwell where chlorine is added for disinfection.

The project proposes the installation of eight (8) ion exchange contact vessels, each rated for 1,500 gallons per minute (GPM). The vessels will be plumbed for two separate configurations. The first is a low PFAS mode with all 8 vessels operating in parallel. The second is a high PFAS

mode which will utilize 4 pairs of vessels operating in series. Alongside the vessel installations the project will also construct a new building to house the ion exchange vessels.

The proposed total cost for this project is \$11,180,000.00. The WAWB intends to pursue a \$7,180,000 Congressional Directed Spending and a \$4,000,000 DWTRF Emerging Contaminants Grant. The proposed monthly rate will be 58.81 (1.39% MHI for the City of Weirton and 1.44% MHI for Hancock and Brooke Counties) for 3,400 gallons.

### **NEED FOR PROJECT**

Currently the WAWB WTP is undergoing a project to increase its capacity to 8.0 MGD. Prior to this the United States Geological Survey (USGS) and the WestVirginia Division of Health and Human Resources (WV DHHR) collaborated to analyze water quality in community water supplies in West Virginia, including 28 PFAS compounds. Six (6) of these compounds have since been listed in the United States Environmental Protection Agency's (EPA) National Primary Drinking Water Regulations (NPDWR). The analysis indicated even after treatment, the concentration of PFOS exceeded the EPA's proposed limit.

This project will allow the City to continue to reliably provide safe potable water to its customers as well as keep the WAWB in compliance with NPDWR by reducing the levels of PFAS in their treated water. As well as achieving compliance, the removal of PFAS from the WAWB treated water will also reduce or eliminate the associated health risks such as the risk of cancer, birth defects, and hormonal imbalances.

### **DEFICIENCIES/COMMENTS**

- Using the Combined Application, the Total Engineering Fees appear to be above the ASCE Curves.
- DR42 Rate is not consistent between the Combine Preliminary Application and Preliminary Engineering Report.
- A pilot study should be included to properly determine most effective treatment technology.

#### **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



May 14, 2026

Brad Sergent, Chair

Water Development Authority, Acting Executive Director

Katheryn Emery, P.E., Program Manager

CWSRF & DWTRF, Division of Water and Waste Management, WVDEP

Meredith Vance, Director

Environmental Engineering Division, WVBPH

Re: Public Service Commission Staff Review Comments

Application No. 2026W-2782

Weirton, City of – Water Treatment Plant Improvements

Infrastructure Preliminary Application

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,

*Brandon Crace*

Brandon Crace  
Engineering Division

Enclosures

**PUBLIC SERVICE COMMISSION STAFF  
TECHNICAL REVIEW**

**DATE:** May 11, 2026

**PROJECT SPONSOR: CITY OF WEIRTON WATER BOARD**

**PROJECT SUMMARY:** The City of Weirton is proposing to make improvements to its water treatment system to address the presence of PFAS in its drinking water supply.

<b>PROPOSED FUNDING:</b> DWTRF Emerging Contaminant PFL	\$ 4,000,000
CDS Match	<u>\$ 7,180,000</u>
Total	<u>\$11,180,000</u>

<b>CURRENT RATES:</b>	\$41.60	3,400 gallons
	\$47.00	4,000 gallons

<b>PROPOSED RATES:</b>	\$58.81	3,400 gallons
	\$66.44	4,000 gallons

Application No. 2026W-2782

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

**FINANCIAL:** Stephen Edens

1. Current rates (\$41.60 for 3,400 gallons) are below the rates attributable to 1.25% (\$52.94), 1.5% (\$63.53), 1.75% (\$74.12) and 2.0% (\$84.70) 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 \$1,710,501, \$3,307,619, \$4,904,736 and \$6,501,854 respectively.
2. Using Scenario 1, the preferred funding package consisting of a DWTRF Emerging Contaminant PFL of \$4,000,000 and a \$7,180,000 CDS Match Grant, proposed rates (\$58.81 for 3,400 gallons) will provide a cash flow surplus of \$174,863 and debt service coverage of 176.68%.
3. Using the Scenario 2 alternate loan package of \$11,180,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), proposed

rates (\$64.16 for 3,400 gallons) will provide a cash flow surplus of \$174,905 and debt service coverage of 157.83%.

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, 2025, and the applicant's 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 Applicants Cash Flow Analysis includes the impact of prior projects, (application numbers 2019W-1795 and 2024W-2609) and the current project to be undertaken. The project which is the subject of this review is identified as the Proposed Proforma which is the third of the three projects and the applicable Cash Flow Analysis reflects increased rates for one of the prior projects as well as this one which is the subject of this application. Staff's analysis includes these prior project adjustments as well as the impact of this project and the proposed rates (\$58.81 for 3,400 gallons). Staff notes, these proposed rates, as of this date, have not been adopted by the City.
- F. The project sponsor's Annual Report for the Fiscal Year Ended June 30, 2025, listed current operation and maintenance expenses of \$4,182,337, while the cash flow provided with the preliminary application lists per books operation and maintenance expenses of \$4,247,356. No justification was provided in the filing for this adjustment. Staff reflected the cash flow numbers in its analysis.
- G. The project sponsor's Annual Report for the Fiscal Year Ended June 30, 2025, listed current operating revenue of \$5,257,681, while the cash flow provided with the preliminary application lists per books operating

revenue of \$5,273,271. No justification was provided in the filing for this adjustment. Staff reflected the cash flow numbers in its analysis.

- H. Staff notes the Applicant's Cash Flow Analyses reflects a math/formula error of \$262,790 at Proforma Total Long-Term Debt Service and Reserve Requirements. The amount shown of \$2,379,254 for the Preferred Scenario should be increased by \$262,790 to \$2,642,044, and the amount shown of \$3,121,498 for the Loan Scenario should be increased by \$262,790 to \$3,384,287. Staff corrected this in its analysis.
- I. 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.
- J. The City of Weirton 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. Staff notes that the City is a political subdivision of the state and it has at least 4,500 customers and annual gross revenues of \$3 million or more. Therefore, in accordance with Senate Bill 234, effective June 12, 2015, the Commission has no jurisdiction regarding the City's rates pursuant to WV Code 24-2-4b. However, the Commission does have jurisdiction pursuant to WV Code 24-2-1 (b)(6) for the investigation and resolution of disputes involving political subdivisions of the state regarding inter-utility agreements, rates, fees and charges, service areas and contested utility combinations.

**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 City of Weirton is proposing to make improvements to its Water Treatment System to address the presence of PFAS in its drinking water supply. The proposed project scope includes: mobilization, demobilization, pre-construction video recording, 1250 CY of excavation, 650 CY of structural fill, 750 CY of spoil excavated off-site soils, 40 CY of 10-foot wide gravel road, 10000 SF of seeding and mulching, site piping, site lighting, filter building piping modifications, ion exchange pumps & controls, ion exchange contact vessels (media, valves, & piping), ion exchange controls, equipment installation, 2600 SF ion exchange building, ion exchange building foundation, ion exchange building HVAC, SCADA integration, building permit, B&O taxes, erosion and sediment control, and all necessary appurtenances. The estimated construction cost is \$9,355,000 (includes 15.01% construction contingency), and the estimated total project cost is \$11,180,000 (includes 2.53% project contingency).

Need: The PER indicates that the USGS and WV DHHR an analysis was performed on finished water quality, which included samples drawn from Weirton's clearwell. The analysis results indicate that PFOS concentrations exceeded the EPA's proposed limit after water treatment. The combined concentrations of PFNA, PFHxS, PFBS, and HFPO-DA exceeds the limits proposed by the EPA. The PER states "... it nonetheless clearly demonstrates that Weirton's existing treatment processes are insufficient to maintain PFAS concentrations below the levels proposed in the new regulations."

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

Cost per Customer: Based upon the estimated total project cost of \$11,180,000, and having approximately 9365 customers, the cost per customer will be approximately \$1,194. However, the cost per customer in terms of proposed borrowing is \$0, as the proposed funding is 100% grant.

3. Project Alternatives: The PER evaluated 4 alternatives: Alternative #1 – Activated Carbon Dosing, Alternative #2 – Pressurized GAC Filtration, Alternative #3 – Ion Exchange Filtration, and Alternative #4 – Do Nothing. The PER states that Alternative #3 was selected.
4. Consolidation: There are no consolidation opportunities presented by this project.

5. Operation and Maintenance (O&M) Expenses: The PER did include a discussion of anticipated changes to O&M expenses. The PER indicates an anticipated annual O&M increase of \$1,003,356 due to the PFAS Removal treatment.
6. 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 \$1,540,000, which is equal to 16.46% of the construction cost of \$9,355,000 (includes 15.01% construction contingency).
7. Deficiencies/Comments:
  - Nothing significant to note.

CITY OF WEIRTON WATER BOARD  
 CASH FLOW ANALYSIS  
 YEAR ENDED: June 30, 2025  
 2026W-2782  
 May 11, 2026

**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
	\$	\$	\$	\$
<b>AVAILABLE CASH</b>				
Operating Revenues	6,010,444	8,413,269	(759,243) (1)	7,654,026
Other Operating Revenue	245,496	245,496	-	245,496
SB 234 Annual Working Cash Collections			759,243 (2)	759,243
Interest Income & Other Misc.	350,447	350,447	-	350,447
<b>Total Cash Available</b>	<b>6,606,387</b>	<b>9,009,212</b>	<b>-</b>	<b>9,009,212</b>
<b>OPERATING DEDUCTIONS</b>				
Operating Expenses	4,526,096	6,075,308	-	6,075,308
Taxes	138,281	138,281	-	138,281
<b>Total Cash Requirements Before Debt Service</b>	<b>4,664,377</b>	<b>6,213,589</b>	<b>-</b>	<b>6,213,589</b>
Cash Available for Debt Service (A)	1,942,010	2,795,623	-	2,795,623
<b>DEBT SERVICE REQUIREMENTS</b>				
Principal & Interest (B)	765,243	1,582,321	-	1,582,321
Other Debt			-	-
Reserve Account @ 10%		81,708	-	81,708
Renewal & Replacement Fund (2.5%)	165,160	218,772	(21,284) (3)	197,488
<b>Total Debt Service Requirement</b>	<b>930,403</b>	<b>1,882,801</b>	<b>(21,284)</b>	<b>1,861,517</b>
SB 234 Cash Working Capital	565,762	759,243	-	759,243
<b>Remaining Cash</b>	<b>445,845</b>	<b>153,579</b>	<b>21,284</b>	<b>174,863</b>
Percent Coverage (A) / (B)	253.78%	176.68%		176.68%
Average rate for 3,400 gallons	\$ 41.60	\$ 58.81	\$ -	\$ 58.81
Average rate for 4,000 gallons	\$ 47.00	\$ 66.44	\$ -	\$ 66.44

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	<b>Operating Revenues</b>	<b>Per Staff Analysis</b>	<b>7,654,026</b>	<b>(759,243)</b>
		<b>Per Application with Project</b>	<b>8,413,269</b>	
	Adjust revenues in accordance with PSC General Order 183.11.			
(2)	<b>SB 234 Annual Working Cash Collections</b>	<b>Per Staff Analysis</b>	<b>759,243</b>	<b>759,243</b>
		<b>Per Application with Project</b>	<b>-</b>	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	<b>Renewal &amp; Replacement Fund (2.5%)</b>	<b>Per Staff Analysis</b>	<b>197,488</b>	<b>(21,284)</b>
		<b>Per Application with Project</b>	<b>218,772</b>	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			

CITY OF WEIRTON WATER BOARD  
 CASH FLOW ANALYSIS  
 YEAR ENDED: June 30, 2025  
 2026W-2782  
 May 11, 2026

**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
	\$	\$	\$	\$
<b>AVAILABLE CASH</b>				
Operating Revenues	6,010,444	9,161,084	(759,243) (1)	8,401,841
Other Operating Revenue	245,496	245,496	-	245,496
SB 234 Annual Working Cash Collections			759,243 (2)	759,243
Interest Income & Other Misc.	350,447	350,447	-	350,447
<b>Total Cash Available</b>	<b>6,606,387</b>	<b>9,757,027</b>	<b>-</b>	<b>9,757,027</b>
<b>OPERATING DEDUCTIONS</b>				
Operating Expenses	4,526,096	6,075,308	-	6,075,308
Taxes	138,281	138,281	-	138,281
<b>Total Cash Requirements Before Debt Service</b>	<b>4,664,377</b>	<b>6,213,589</b>	<b>-</b>	<b>6,213,589</b>
Cash Available for Debt Service (A)	1,942,010	3,543,438	-	3,543,438
<b>DEBT SERVICE REQUIREMENTS</b>				
Principal & Interest (B)	765,243	2,240,092	5,027 (3)	2,245,119
Other Debt			-	-
Reserve Account @ 10%		147,485	503 (4)	147,988
Renewal & Replacement Fund (2.5%)	165,160	237,468	(21,285) (5)	216,183
<b>Total Debt Service Requirement</b>	<b>930,403</b>	<b>2,625,045</b>	<b>(15,756)</b>	<b>2,609,290</b>
SB 234 Cash Working Capital	565,762	759,243	-	759,243
<b>Remaining Cash</b>	<b>445,845</b>	<b>159,150</b>	<b>15,756</b>	<b>174,905</b>
Percent Coverage (A) / (B)	253.78%	158.18%		157.83%
Average rate for 3,400 gallons	\$ 41.60	\$ 64.16	\$ -	\$ 64.16
Average rate for 4,000 gallons	\$ 47.00	\$ 72.49	\$ -	\$ 72.49

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	<b>Operating Revenues</b>	Per Staff Analysis	8,401,841	(759,243)
		Per Application with Project	9,161,084	
	Adjust revenues in accordance with PSC General Order 183.11.			
(2)	<b>SB 234 Annual Working Cash Collections</b>	Per Staff Analysis	759,243	759,243
		Per Application with Project	-	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	<b>Principal &amp; Interest</b>	Per Staff Analysis	2,245,119	5,027
		Per Application with Project	2,240,092	
	The difference in P&I is related to Staff's calculation of a loan of \$11,180,000 for 40 years (paid back over 38 years) at 5%.			
(4)	<b>Reserve Account @ 10%</b>	Per Staff Analysis	147,988	503
		Per Application with Project	147,485	
	Staff assumed a 10% reserve on the new debt.			
(5)	<b>Renewal &amp; Replacement Fund (2.5%)</b>	Per Staff Analysis	216,183	(21,285)
		Per Application with Project	237,468	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			



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west virginia department of environmental protection


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Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

## MEMORANDUM

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

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

DATE: April 29, 2026

SUBJECT: Infrastructure Preliminary Application for the City of Weirton: Water - PFAS Treatment Upgrade Project in Hancock County, WV. (2026W-2782)

We have reviewed the above referenced project application information. The City of Weirton, discharges its backwash to its site, which is covered under WV/NPDES Site Registration No. WVG640096, and expires July 18, 2028. Since changes to the backwash system are being made, a modification of WVG640096 shall be required.

If the City of Weirton 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 City of Weirton 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 City of Weirton 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

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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