



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

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

Date: April 20, 2026

Subject: Town of Bath (Berkeley Springs Water Works)
IJDC Application - 2026W-2754
Water Treatment Facility Upgrades

-
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:

This project proposes several upgrades to address the system's immediate needs and completing a hydraulic model for system evaluation. The project will provide its customers with a reliable water source until long-term, major upgrades are completed.

The proposed cost for this project is \$750,000. The Town of Bath will pursue a funding scenario of a \$375,000 IJDC Grant and a \$375,000 IJDC Loan (2%, 30 years). The proposed month rate for 3,400 gallons is \$58.31 (1.6% MHI).

The variance request for design fees and the engineering total fees submitted by Gwin Dobson & Forman Engineers for the above referenced project has been reviewed and is technically feasible.

Preliminary Project Ratings:

Public Health Benefits: 5
Compliance with Standards: 0



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MEMORANDUM

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

FROM: Spencer Fultineer, DWWM

DATE: April 14, 2026

SUBJECT: Town of Bath (Berkeley Springs Water Works)
Water Treatment Facility Upgrades
IJDC No. 2026W-2754

RECOMMENDATION

The IJDC application and Preliminary Engineering Report (PER) prepared by Gwin Dobson & Forman Engineers for the above referenced project have been reviewed and are technically feasible.

The variance request for design fees and the engineering total fees submitted by Gwin Dobson & Forman Engineers for the above referenced project has also been reviewed and is technically feasible.

PROJECT DESCRIPTION

The Berkeley Springs Water Works Treatment Facility of the Town of Bath (Berkeley Springs) operates under NPDES Permit Number WV0115754 and retrieves surface water from Fairfax Spring. The facility serves 1,526 customers within the Corporation Berkeley Springs and a portion of the surrounding area in Morgan County and produces approximately 340,000 gallons of water per day.

The purpose of this project is to address the immediate needs of the Berkeley Springs Water Works Treatment Facility to provide its customers with a reliable water source until long-term, major upgrades are completed. The project proposes several short-term upgrades, which include upgrading the control panel with component replacements and critical instrumentation

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installation, installing a second raw water pump, inspecting and repairing the existing generator and ATS, testing existing filter media and evaluating for repairs, purchasing a spare chemical feed pump, replacing the nonfunctional alarm dialer, installing a vacuum priming system, and completing a hydraulic model for system evaluation.

The proposed cost for this project is \$750,000. The Town of Bath will pursue a funding scenario of a \$375,000 IJDC Grant and a \$375,000 IJDC Loan (2%, 30 years). The proposed month rate for 3,400 gallons is \$58.31 (1.6% MHI).

NEED FOR PROJECT

The Berkeley Springs Water Works Treatment Facility faces many concerns, including visible signs of aging equipment, lack of redundancy, and failing filters and underdrains. The facility run time is approaching 20 hours a day, which does not allow for the required maintenance and repair to be conducted. Additionally, the high service pumps currently operate at 60-70% of design capacity due to increased head pressure in discharge piping. The time required to implement upgrades for these failures is considerable. The proposed project addresses the immediate reliability concerns with equipment, components, and redundancy while long-term upgrades are underway.

DISCUSSION

The proposed project requests a fee variance for the design fees and total engineering fees. This project has additional special services and justifiable work that is necessary for the completion of the design for this project and more long term issues to be addressed at a later date.

Gwin Dobson and Forman Engineers have provided a cost breakdown for the necessary costs alongside the special services.

● Design Drawings	\$45,000
● Specifications	\$15,000
● Survey	\$6,000
● Bid Phase	\$10,000
● Construction Admin.	\$50,000
● Part-Time Inspection	\$12,000

SPECIAL SERVICES

● Filter Subconsultant	\$7,500
● System Hydraulic Modeling and Evaluation	\$56,000

DEFICIENCIES/COMMENTS

- Using the Combined Application, the Total Engineering Fees appear to be above the ASCE Design Fee Curves, but it has been reviewed and appears reasonable.
- A cybersecurity assessment of the proposed control panel program and related instrumentation is recommended.

- The PER will need to further detail the parameters and specifics of the proposed equipment.

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



March 31, 2026

Meredith J. Vance, Director
Environmental Engineering Division, WVBPH
Katheryn Emery, P.E., Program Manager
CWSRF & DWTRF, Division of Water and Waste Management, WVDEP

Re: Public Service Commission Staff Review Comments
Application No. 2026W-2754
Berkeley Springs Water Works (Town of Bath)
– Water System 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: March 31, 2026

PROJECT SPONSOR: TOWN OF BATH - (WATER)

PROJECT SUMMARY: The Berkeley Springs Water Works (Town of Bath) is proposing to make improvements to its existing water treatment system.

PROPOSED FUNDING: IJDC Grant	\$375,000
IJDC Loan (2%, 30 yrs.)	<u>\$375,000</u>
Total	\$750,000

CURRENT/ PROPOSED RATES:	\$58.31	3,400 gallons
	\$66.70	4,000 gallons

Application No. 2026W-2754

RECOMMENDATION: Forward to the Funding Committee
 Forward to the Consolidation Committee
 Return to the Applicant

FINANCIAL: Dave Acord

1. Current rates (\$58.31 for 3,400 gallons) are above the rates attributable to 1.25% (\$44.46) and 1.5% (\$53.36 of the Median Household Income (MHI), but below 1.75% (\$62.25) and 2% (\$71.14) of the MHI. Increasing current rates to 1.75% and 2% of the MHI would provide additional revenues of \$25,822, and \$84,098, respectively.
2. Using Scenario 1, the preferred funding package consisting of an IJDC Loan of \$375,000 at 2% for 30 years and an IJDC Grant of \$375,000, proposed rates (\$58.31 for 3,400 gallons) will provide a cash flow surplus of \$10,292 and debt service coverage of 166.06%.
3. Using Scenario 2, alternate loan package of \$750,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), proposed rates (\$59.70 for 3,400 gallons) will provide a cash flow surplus of \$10,434 and debt service coverage of 160.82%.

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, 2025, and the applicant's Rule 42 Exhibit submitted with the application.
- C. Due to concerns with the accuracy of the project sponsor's Max Rate Scenario cash flow, Staff used its Scenario 1 cash flow as the basis for its Scenario 2 analysis.
- D. 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 flow provided by the project sponsor includes funding for the 1/8 cash working capital reserve. Staff accepted that amount in its analysis. However, this amount may be reviewed by the Commission in future filings in accordance with Public Service Commission General Order 183.11.
- E. 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 evaluating its revenue requirements.
- F. The Town of Bath 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 Berkeley Springs Water Works (Town of Bath) is proposing to make improvements to its existing water treatment system. The proposed

project scope includes: replacement or upgrade to plant control panel, purchase and installation of 2nd water pump in the raw water tank, surge suppression device installed downstream from existing automatic transfer switch, inspection and evaluation of existing filters, purchase back-up chemical pump, and the installation of vacuum priming system on backwash pumps. The estimated construction cost is \$466,950 (includes 10.0% construction contingency), and the estimated total project cost is \$750,000.

Need: The PER states that the control panels have reached the end of their useful life, contain obsolete parts, and utilize an “old version” of the PLC program, operating without a backup copy. The existing generator and automatic transfer switch have experienced issues and failures that need to be evaluated and addressed to maintain the emergency power source. A visual inspection through the clearwell indicated filter media passing into the clearwell, indicating that the filter media is leaving the filter and confirming the media bed measurements (media levels less than designed levels). The existing backwash pumps require manual priming, are centrifugal pumps (suggested as an ineffective option for this type of application), and operators have noted significant issues upon startups. Additionally, the alarm dialer system does not appear to be functioning properly, the single chemical feed pump does not have redundancy options, and a distribution system evaluation needs to be conducted to determine the scope of improvements to increase capacity at the treatment plant.

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 \$750,000, and having approximately 1526 customers, the cost per customer will be approximately \$492. However, the cost per customer in terms of proposed borrowing is \$246, as the proposed funding is 50% grant.

3. Project Feasibility: The project appears to be technically feasible and poses little technical risk.
4. Project Alternatives: The PER evaluated six (6) alternates: Alternative A – Renovating/Replacing Existing Filters, Alternative B – New Dual Media Filters, Alternative C – New Membrane Filtration System, Alternative D – Alternate Site Outside of Town, Alternative E – Connecting to Another Water System, and Alternative F – New Treatment Technologies. A supplemental document (letter) indicates that the selected alternative is to pursue the Short-Term Upgrades in order to continue to provide reliable operations.

5. Consolidation: There are no consolidation opportunities presented by this project.
6. Operation and Maintenance (O&M) Expenses: The PER did not include a general discussion or detailed description of changes to O&M expenses that aligns with the proposed scope of the selected alternative.
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 \$201,500, which is equal to 43.15% of the construction cost of \$750,000 (includes 10% construction contingency). The reported \$201,500 includes \$56,000 for hydraulic modeling and evaluation of the existing water system.
8. Deficiencies/Comments:
 - Approximately 28% (\$56,000) of the total technical fee (\$201,500) is related to hydraulic modeling and evaluation of the existing water system to aid in the design, and consideration of selecting an alternative to upgrade, or replace, the water treatment system. These costs are not associated with the proposed scope of work (Short Term Upgrades).
 - The PER did not include a general discussion or detailed description of changes to O&M expenses that aligns with the proposed scope of the selected alternative.

TOWN OF BATH - WATER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2025
 APPLICATION NO: 2026W-2754
 March 31, 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
	\$	\$	\$	\$
AVAILABLE CASH				
Operating Revenues	1,318,033	1,318,033	(122,521) (1)	1,195,512
Other Operating Revenue	58,503	58,503	-	58,503
SB 234 Annual Working Cash Collections	-	-	122,521 (2)	122,521
Interest Income & Other Misc.	53,158	53,158	-	53,158
Total Cash Available	1,429,694	1,429,694	-	1,429,694
OPERATING DEDUCTIONS				
Operating Expenses	980,166	980,166	-	980,166
Taxes	32,646	32,646	-	32,646
Total Cash Requirements Before Debt Service	1,012,812	1,012,812	-	1,012,812
Cash Available for Debt Service (A)	416,882	416,882	-	416,882
DEBT SERVICE REQUIREMENTS				
Principal & Interest (B)	234,301	251,803	(758) (3)	251,045
Other Debt	-	-	-	-
Reserve Account @ 10%	-	1,750	(76) (4)	1,674
Renewal & Replacement Fund (2.5%)	35,742	35,742	(4,392) (5)	31,350
Total Debt Service Requirement	270,043	289,295	(5,226)	284,069
SB 234 Cash Working Capital	122,521	122,521	-	122,521
Remaining Cash	24,318	5,066	5,226	10,292
Percent Coverage (A) / (B)	177.93%	165.56%		166.06%
Average rate for 3,400 gallons	\$ 58.31	\$ 58.31	\$ -	\$ 58.31
Average rate for 4,000 gallons	\$ 66.70	\$ 66.70	\$ -	\$ 66.70

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	1,195,512	(122,521)
		Per Application with Project	1,318,033	
	Adjust revenues in accordance with PSC General Order 183.11.			
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis	122,521	122,521
		Per Application with Project	-	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	Principal & Interest	Per Staff Analysis	251,045	(758)
		Per Application with Project	251,803	
	The difference in P&I is related to Staff's calculation of an IJDC loan of \$375,000 for 30 years at 2%.			
(4)	Reserve Account @ 10%	Per Staff Analysis	1,674	(76)
		Per Application with Project	1,750	
	Staff assumed a 10% reserve on the new debt.			
(5)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	31,350	(4,392)
		Per Application with Project	35,742	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			

TOWN OF BATH - WATER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2025
 APPLICATION NO: 2026W-2754
 March 31, 2026

**LOAN PACKAGE
 SCENARIO 2**

	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	1,318,033	1,318,033	(91,102) (1)	1,226,931
Other Operating Revenue	58,503	58,503	-	58,503
SB 234 Annual Working Cash Collections	-	-	122,521 (2)	122,521
Interest Income & Other Misc.	53,158	53,158	-	53,158
Total Cash Available	1,429,694	1,429,694	31,419	1,461,113
OPERATING DEDUCTIONS				
Operating Expenses	980,166	980,166	-	980,166
Taxes	32,646	32,646	-	32,646
Total Cash Requirements Before Debt Service	1,012,812	1,012,812	-	1,012,812
Cash Available for Debt Service (A)	416,882	416,882	31,419	448,301
DEBT SERVICE REQUIREMENTS				
Principal & Interest (B)	234,301	234,301	44,463 (3)	278,764
Other Debt	-	-	-	-
Reserve Account @ 10%	-	-	4,446 (4)	4,446
Renewal & Replacement Fund (2.5%)	35,742	35,742	(3,606) (5)	32,136
Total Debt Service Requirement	270,043	270,043	45,303	315,346
SB 234 Cash Working Capital	122,521	122,521	-	122,521
Remaining Cash	24,318	24,318	(13,884)	10,434
Percent Coverage (A) / (B)	177.93%	177.93%		160.82%
Average rate for 3,400 gallons	\$ 58.31	\$ 58.31	\$ 1.39	\$ 59.70
Average rate for 4,000 gallons	\$ 66.70	\$ 66.70	\$ 1.59	\$ 68.29

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	1,226,931	(91,102)
		Per Application with Project	1,318,033	
	Adjust revenues in accordance with PSC General Order 183.11. Staff also adjusted revenues by \$31,419 to account for the proposed increase in rates for this scenario.			
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis	122,521	122,521
		Per Application with Project	-	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	Principal & Interest	Per Staff Analysis	278,764	44,463
		Per Application with Project	234,301	
	The difference in P&I is related to Staff's calculation of a loan of \$750,000 for 40 years (paid back over 38 years) at 5%.			
(4)	Reserve Account @ 10%	Per Staff Analysis	4,446	4,446
		Per Application with Project	-	
	Staff assumed a 10% reserve on the new debt.			
(5)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	32,136	(3,606)
		Per Application with Project	35,742	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			



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M E M O R A N D U M

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

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

DATE: March 19, 2026

SUBJECT: Infrastructure Preliminary Application for the Town of Bath (2026W-2754):
Berkeley Springs Water Treatment Plant Phase I in Morgan County, WV.

We have reviewed the above referenced project application information. The Town of Bath discharges its backwash to its site, which is covered under WV/NPDES Permit No. WVG640088, which expires July 18, 2028. Any changes to the filter backwash discharge treatment system, or discharge flow volume may require a permit modification of WVG640088.

If the Town of Bath 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 Bath 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 Bath 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