



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., Program Manager
Sewer Technical Review Committee

Date: August 15, 2025

Subject: Chestnut Ridge Public Service District
IJDC Application - 2025W-2692
Phase II Water System Improvements

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 is to replace deteriorating and undersized main water lines along WV Route 38 and Frost Run Rd. This will aid in reducing the District's 60% water loss as well as increase the efficiency and reliability of the system as a whole.

The total project cost is \$2,500,000 and the District intends to pursue a \$1,000,000 IJDC grant, and a \$1,500,000 DWTRF principal forgiveness loan.

Preliminary Project Ratings:

Public Health Benefits: 5
Compliance with Standards: 10



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MEMORANDUM

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

FROM: Tyler Barrett, E.I., DWWM

DATE: August 7, 2025

SUBJECT: Chestnut Ridge Public Service District
IJDC Application - 2025W-2692
Phase II Water System Improvements

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 Chestnut Ridge Public Service District (District) owns and operates two (2) Class WD Potable water distribution systems (PWSID #3300102, 3300109) in Barbour County, WV that provides water service to the Chestnut Ridge, Tacy, Arden, Nestorville, Hiram, Frost Run, Pea Ridge, Claude Run, and Moatsville areas of Philippi, WV. The District's water system serves approximately 1,174 residential and 33 commercial customers. The District is a water-purchasing system that purchases water for resale from the City of Philippi. The District's water distribution system consists of seven (7) water storage tanks, seven (7) booster pump stations, and 168.09 miles of waterline ranging in size from 2" to 12".

The proposed project will replace the main water transmission lines along West Virginia Route 38 and Frost Run. The proposed replacement consists of the following: 15,000 LF of 10" HDPE DR 11 waterline, 6,000 LF of 6" HDPE DR 11 waterline, 1,700 LF of ¾" polyethylene service tubing, 40 new customer meter settings utilizing existing water meters, 10 10-inch gate valves, 2

6-inch gate valves, 12 fire hydrant assemblies, 1 new pressure reducing valve station, and 12 new zone meter installations with all necessary appurtenances.

The total estimated cost of this project is \$2,500,000. The proposed funding scenario includes a \$1,000,000 grant from the West Virginia Infrastructure and Jobs Development Council (WVIJDC) and a \$1,500,000 Drinking Water Treatment Revolving Fund (DWTRF) Principal Forgiveness loan.

The existing monthly rate for 3,400 gallons is \$83.73. No rate increase is anticipated as a result of this project.

NEED FOR PROJECT

According to the 2024 West Virginia Public Service Commission (WV PSC) Annual Report, the District purchased approximately 106 MG of water, yet only 43 MG were billed and sold to customers. This represents a non-revenue water loss of approximately 60%, substantially higher than the acceptable loss of 15%. Of the water not accounted for, nearly 59 MG were identified as losses due to mainline leaks. The primary reason for the extensive water loss is believed to be due to failing fused joints in the HDPE piping. Replacing the deteriorated mains will help to significantly reduce the amount of water loss.

The District also experiences hydraulic deficiencies in parts of their system, leading to customer complaints, inconsistent service pressures, and service interruptions. There is approximately 6,000 LF of 2" waterline along Frost Run that is causing excessive pressure loss in the system. Replacing this section with a 6" diameter water line will reduce the pressure loss in the system and increase efficiency and reliability.

DEFICIENCIES/COMMENTS

- Using the Combined Application, the Design and Total Engineering Fees appear to be within the ASCE Curves.

Preliminary Project Ratings:

Public Health Benefits: 5
Compliance with Standards: 15

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



August 14, 2025

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. 2025W-2692
Chestnut Ridge PSD – Water System Improvements (Phase II)
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,

Brandon Crace

Brandon Crace
Engineering Division

Enclosures
BC:

**PUBLIC SERVICE COMMISSION STAFF
TECHNICAL REVIEW**

DATE: August 14, 2025

PROJECT SPONSOR: CHESTNUT RIDGE PUBLIC SERVICE DISTRICT -
WATER

PROJECT SUMMARY: Chestnut Ridge PSD proposes to construct Phase II
Water System Improvements.

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

CURRENT RATES:	\$ 87.67	3,400 gallons
	\$ 102.86	4,000 gallons

Application No. 2025W-2692

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

FINANCIAL: Bob Cadle

1. Current rates (\$87.67 for 3,400 gallons) are above the rates attributable to 1.25% (\$40.53), 1.5% (\$48.63), 1.75% (\$56.74), and 2% (\$64.84) of the Median Household Income.
2. Using Scenario 1, the preferred funding package consisting of a DWTRF Principal Forgiveness of \$1,500,000, and an IJDC Grant of \$1,000,000, proposed rates (\$87.67 for 3,400 gallons) will provide a cash flow surplus of \$5,608 and debt service coverage of 169.83%.
3. Using the Scenario 2 alternate loan package of \$2,500,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), proposed rates (\$98.19 for 3,400 gallons) will provide a cash flow deficit of \$10,858 and debt service coverage of 140.68%. An additional 0.9% (for a total of \$99.07 for 3,400 gallons) increase in proposed rates will be required in order to provide a cash flow surplus of \$842 and a debt service coverage of 144.13%.

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, 2024, and the Applicant's Cash Flow Statement submitted with the application.
- C. Because proposed funding is based on all grant funding and no rate increase is needed for the project, the Applicant is requesting a waiver of the Rule 42 Exhibit requirement.
- D. Staff notes, the Applicant's cash flow analysis includes Pro-forma rates of \$87.67 (for 3,400 gallons). These Step 2 rates are effective for all service rendered upon substantial completion of the upcoming reservoir project of the City of Philippi or six months prior to commencement of payment of debt service, whichever occurs first. Staff included these rates in its analysis.
- 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.

ENGINEERING: Jim Spurlock

- 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: Chestnut Ridge PSD proposes to construct Phase II Water System Improvements. Phase I consisted of improvements to tanks, booster stations, and telemetry. Phase II will consist of water line replacements

along WV Route 38 and Frost Run. Construction will include 15,000 feet and 10-inch and 6,000 feet of 6-inch water lines along with valves, hydrants, and appurtenances. Additionally, twelve zone meters will be placed on existing lines to help track water use and loss in various areas of the system.

Customer Density: N/A

Cost per Customer: \$2,122

Taken from the total project cost estimate of \$2,500,000 spread over 1,178 existing customers.

3. Project Feasibility: The project is technically feasible. The cost per new customer is reasonable. Two-thirds of the District's 51% water loss has been determined to occur along the Route 38 water line. Water lines along Frost Run are undersized, resulting in excessive pressure loss issues. The District purchases water from the City of Philippi.
4. Project Alternatives: The alternative of performing the main replacements with the same sized lines and those being replaced was discussed and dismissed since it would not resolve the pressure issues.
5. Consolidation: No consolidation opportunities are presented by the project.
6. Inconsistencies: None were noted.
7. Operation and Maintenance (O & M) Expenses: O & M costs are projected to decrease by \$69,408 annually due to reduced purchased water costs. Supporting calculations were not provided.
8. Engineering Agreement: The application includes information to determine apparent compliance with West Virginia Code §§5G-1-1, et seq. Total technical services (engineering) costs for the project are \$397,000 which is equal to 20.36% of the construction cost of \$1,950,000 (including contingency).

CHESTNUT RIDGE PUBLIC SERVICE DISTRICT - WATER

CASH FLOW ANALYSIS

YEAR ENDED: June 30, 2024

APPLICATION NO: 2025W-2692

August 14, 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
	\$	\$	\$	\$
<u>AVAILABLE CASH</u>				
Operating Revenues	1,138,642	1,138,642	-	1,138,642
Other Operating Revenue	29,356	29,356	-	29,356
SB 234 Annual Working Cash Collections	93,154	93,154	-	93,154
Interest Income & Other Misc.	2,918	2,918	-	2,918
Total Cash Available	1,264,070	1,264,070	-	1,264,070
<u>OPERATING DEDUCTIONS</u>				
Operating Expenses	912,179	912,179	-	912,179
Taxes	13,016	13,016	-	13,016
Total Cash Requirements Before Debt Service	925,195	925,195	-	925,195
Cash Available for Debt Service (A)	338,875	338,875	-	338,875
<u>DEBT SERVICE REQUIREMENTS</u>				
Principal & Interest (B)	199,533	199,533	-	199,533
Other Debt	-	-	-	-
Reserve Account @ 10%	11,380	11,380	-	11,380
Renewal & Replacement Fund (2.5%)	31,529	31,529	(2,329) (1)	29,200
Total Debt Service Requirement	242,442	242,442	(2,329)	240,113
SB 234 Cash Working Capital	93,154	93,154	-	93,154
Remaining Cash	3,279	3,279	2,329	5,608
Percent Coverage (A) / (B)	169.83%	169.83%		169.83%
Average rate for 3,400 gallons	\$ 87.67	\$ 87.67	\$ -	87.67
Average rate for 4,000 gallons	\$ 102.86	\$ 102.86	\$ -	\$ 102.86

**CHESTNUT RIDGE PUBLIC SERVICE DISTRICT - WATER
CASH FLOW ANALYSIS
YEAR ENDED: June 30, 2024
APPLICATION NO: 2025W-2692**

**Attachment A
PREFERRED FUNDING PACKAGE
SCENARIO 1**

Staff Adjustments

<u>Adjustment Description</u>			
		\$	Increase <Decrease>
(1)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	29,200
		Per Application with Project	(2,329)
			31,529

Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.

CHESTNUT RIDGE PUBLIC SERVICE DISTRICT - WATER
CASH FLOW ANALYSIS
YEAR ENDED: June 30, 2024
APPLICATION NO: 2025W-2692
August 14, 2025

**LOAN FUNDING 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	1,138,642	1,286,458	12,000 (1)	1,298,458
Other Operating Revenue	29,356	31,864	-	31,864
SB 234 Annual Working Cash Collections	93,154	93,154	-	93,154
Interest Income & Other Misc.	2,918	2,918	-	2,918
Total Cash Available	1,264,070	1,414,394	12,000	1,426,394
OPERATING DEDUCTIONS				
Operating Expenses	912,179	912,179	-	912,179
Taxes	13,016	13,016	-	13,016
Total Cash Requirements Before Debt Service	925,195	925,195	-	925,195
Cash Available for Debt Service (A)	338,875	489,199	12,000	501,199
DEBT SERVICE REQUIREMENTS				
Principal & Interest (B)	199,533	346,620	1,124 (2)	347,744
Other Debt	-	-	-	-
Reserve Account @ 10%	11,380	11,380	14,821 (3)	26,201
Renewal & Replacement Fund (2.5%)	31,529	35,287	(2,029) (4)	33,258
Total Debt Service Requirement	242,442	393,287	13,916	407,203
SB 234 Cash Working Capital	93,154	93,154	-	93,154
Remaining Cash	3,279	2,758	(1,916)	842
Percent Coverage (A) / (B)	169.83%	141.13%		144.13%
Average rate for 3,400 gallons	\$ 87.67	\$ 98.19	\$ 0.88	\$ 99.07
Average rate for 4,000 gallons	\$ 102.86	\$ 115.20	\$ 1.04	\$ 116.24

**CHESTNUT RIDGE PUBLIC SERVICE DISTRICT - WATER
CASH FLOW ANALYSIS
YEAR ENDED: June 30, 2024
APPLICATION NO: 2025W-2692**

**Attachment B
LOAN FUNDING PACKAGE
SCENARIO 2**

Staff Adjustments

<u>Adjustment Description</u>			
		\$	Increase <Decrease>
(1) Operating Revenues	Per Staff Analysis	1,298,458	12,000
	Per Application with Project	1,286,458	
Staff projected that an additional \$12,000 in revenue would be needed to achieve a positive cash flow and a debt service coverage of 115%.			
(2) Principal & Interest	Per Staff Analysis	347,744	1,124
	Per Application with Project	346,620	
The difference in P&I is related to Staff's calculation of a loan of \$2,500,000 for 40 years (paid back over 38 years) at 5%.			
(3) Reserve Account @ 10%	Per Staff Analysis	26,201	14,821
	Per Application with Project	11,380	
Staff assumed a 10% reserve on the new debt.			
(4) Renewal & Replacement Fund (2.5%)	Per Staff Analysis	33,258	(2,029)
	Per Application with Project	35,287	
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: July 23, 2025

SUBJECT: Infrastructure Preliminary Application for the Chestnut Ridge PSD
(2025W-2692): Phase III Water System Improvement Project in Barbour County,
WV.

We have reviewed the above referenced project application information. The Chestnut Ridge PSD, purchases its water from the City of Philippi. No NPDES permit modifications are necessary.

If the Chestnut Ridge PSD 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 Chestnut Ridge PSD 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 Chestnut Ridge PSD 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