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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:** Marie Prezioso, Chair  
Meredith J. Vance, Director, Environmental Engineering Division, BPH

**From:** Katheryn Emery, P.E., Engineer Chief  
Sewer Technical Review Committee

**Date:** April 23, 2025

**Subject:** Town of Clay  
IJDC Application - 2025W-2669  
Water Treatment Plant Improvements 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.

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:

This project will upgrade the existing WTP to 1.4 MGD by replacing the existing membranes and installing additional membranes. The Town's wholesale customers are planning multiple service extensions, which will substantially increase the total demand placed on the Clay's WTP. These projects include the Civil-Military Innovation Institute (CMI2), Big Otter / Nebo / Walker Road Waterline Extension, Grassy Fork Waterline Extension, Ossia Road Waterline Extension, Upper Sycamore Road, Moore Fork Extension, and Little Left Hand.

The proposed cost for this project is \$1,600,000 and Clay intends to pursue a \$800,000 IJDC Grant and a \$800,000 WDA Economic Enhancement Grant. This project will not impact current water rates.

The DH noted that the Maysel water storage tank has been cited as a significant deficiency in the past two sanitary surveys due to leaks and damage to the tank and should be considered in this project. In addition, greensand filters are proposed in alternative two and may not be the best treatment process for surface water.

Please review the PSC review regarding the data provided on the Cash Flow Analyses.

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: 0



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**MEMORANDUM**

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

**FROM:** Justin Moffitt, P.E., DWWM

**DATE:** April 18, 2025

**SUBJECT:** Town of Clay  
IJDC Application - 2025W-2669  
Water Treatment Plant Improvements Project

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**RECOMMENDATION**

The IJDC Application and Preliminary Engineering Report prepared by Burgess & Niple for the above referenced project has been reviewed and is technically feasible.

**PROJECT DESCRIPTION**

The Town of Clay Municipal Water Works (Clay) is a Class B potable water utility which provides potable water service to customers in Clay County, West Virginia. Clay's customers include residents and businesses within the boundaries of the Town of Clay as well as bulk users Clay County Public Service District (Clay PSD) and Clay Roane PSD (Clay Roane). Clay currently serves 548 active customers, including Clay PSD and Clay Roane, and operates under PWSID #WV3300801 serving 548 active customers.

This project proposes to upgrade the existing WTP by replacing the existing membranes and installing additional membranes. The current treatment system currently contains 36 modules across two (2) skids, with capacity for up to 44 modules total. Installation of the additional modules will increase the treatment capacity from 800 GPM to 980 GPM (1.14 MGD to 1.4 MGD). To integrate the increase in flow throughout the treatment process, the existing raw water, filter transfer, and high service pumps will need to be upgraded as well.

Infrastructure upgrades include the installation of a raw water intake flow meter and the replacement of pumping systems. Electrical upgrades associated with the equipment changes as well as ensuring major electrical components are outside of the floodplain. Additional

improvements will also be implemented such as painting and coating of surfaces and piping to extend the facility's longevity.

The proposed total cost for this project is \$1,600,000 and Clay intends to pursue a \$800,000 IJDC Grant and a \$800,000 WDA Economic Enhancement Grant. The current monthly rate for 3,400 gallons is \$30.40, 2.06% MHI. This project will not impact current water rates.

### **NEED FOR PROJECT**

The project is needed to provide necessary improvements to the existing WTP to support the expansion of potable water service and provide resilience to maintain level of service. Clay's wholesale customers are planning multiple service extensions, which will substantially increase the total demand placed on the Clay WTP. The projects planned are Civil-Military Innovation Institute (CMI2), Big Otter / Nebo / Walker Road Waterline Extension, Grassy Fork Waterline Extension, Ossia Road Waterline Extension, Upper Sycamore Road, Moore Fork Extension, and Little Left Hand. Using the EDU calculation, flows were projected for each of the proposed future extensions, resulting in an additional 33,000 GPD average anticipated flow.

The chemical feed systems will be upgraded, including new Chlorine, Polyaluminum Chloride (PAC), and Caustic feed systems. The new chemical feed systems will include dual containment, a requirement by the Bureau for Public Health (BPH) which is currently not being met by the existing systems.

### **DEFICIENCIES/COMMENTS**

- No estimate for unaccounted water.
- 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: 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



April 22, 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-2669  
Town of Clay – Water System Improvements  
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,

*Jonathan M Fowler*  
Jonathan M. Fowler, P.E.  
Engineering Division

Enclosures  
JMF:vb

**PUBLIC SERVICE COMMISSION STAFF  
TECHNICAL REVIEW**

**DATE:** April 22, 2025

**PROJECT SPONSOR: TOWN OF CLAY - WATER**

**PROJECT SUMMARY:** To upgrade the Water Treatment Plan.

<b>PROPOSED FUNDING:</b> WDA Economic Enhancement Grant	\$ 800,000
IJDC District 1 Grant	<u>800,000</u>
Total	\$1,600,000

<b>CURRENT AND PROPOSED RATES:</b>	\$ 30.40	3,400 gallons
	\$ 34.98	4,000 gallons

Application No. 2025W-2669

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

**FINANCIAL: Bob Cadle**

1. Current rates (\$30.40 for 3,400 gallons) are above the rates attributable to 1.25% (\$18.45), 1.5% (\$22.14), 1.75% (\$25.82), and 2% (\$29.51) of the Median Household Income.
2. Using Scenario 1, the preferred funding package consisting of WDA Economic Enhancement Grant of \$800,000, and an IJDC District 1 Grant of \$800,000, proposed rates (\$30.40 for 3,400 gallons) will provide a cash flow surplus of \$21,413 and debt service coverage of 236.39%.
3. Using the Scenario 2 alternate loan package of \$1,600,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), proposed rates (\$36.48 for 3,400 gallons) will provide a cash flow surplus of \$17,370 and debt service coverage of 157.21%.

#### 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, 2023, and the applicant's Cash Flow Analysis submitted with the application.
- C. Staff notes the amount of total revenues reflected on the Applicant's Cash Flow Analyses at per books includes transposed numbers. Staff has included the corrected amounts in its analyses. In addition, the Town's 2024 Annual Report, as of this date has not been filed with the PSC.
- D. 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.
- 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.
- F. 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.
- G. The Town 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:** Jonathan Fowler, P.E.

1. Pursuant to House Bill 2472 passed in the 2025 Legislative Session this project will not require a Certificate of Convenience and Necessity from the PSC.
2. Scope: Construction of the project will make modifications to the existing WTP in order to increase capacity and address systems that were either: (i) damaged by flooding; (ii) do not meet current codes and standards and; (iii) replace systems and equipment which are nearing the end of their useful lives. This project is estimated to cost \$1.60 million and the construction cost is \$1.20 million (with contingency). Nominal plant capacity will increase from 800 gpm to 980 gpm, and operating times should remain below eight-hours-per-day under present and projected-future demand.

Customer Density: N/A - Internal improvements only, no new customers.

Cost per New Customer: Based on a project cost of \$1.60 million and 548 existing customers, the cost per customer is about \$2,820; this is acceptable when considering the funding scenario and scope of work.

3. Project Feasibility: The project is technically feasible and poses little implementation risk.
4. Project Alternatives: one logical alternative was reviewed and dismissed. Staff has no objection to the selected alternative.
5. Consolidation: There are no consolidation opportunities presented by this small internal improvement project.
6. Inconsistencies: No fatal issues were noted
7. Operation and Maintenance (O & M) Expenses: O & M expenses are projected to increase by about \$13,500 per year as a result of the project. Adequate preliminary calculations were provided.



8. 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 \$314,800 which is equal to 26.2% of the construction cost.

**TOWN OF CLAY - WATER  
CASH FLOW ANALYSIS  
YEAR ENDED: June 30, 2023  
APPLICATION NO: 2025W-2669  
April 22, 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
	\$	\$	\$	\$
<b>AVAILABLE CASH</b>				
Operating Revenues	508,408	508,408	(45,093) (1)	463,315
Other Operating Revenue	5,966	5,966	-	5,966
SB 234 Annual Working Cash Collections			45,093 (2)	45,093
Interest Income & Other Misc.	567	567	-	567
<b>Total Cash Available</b>	<b>514,941</b>	<b>514,941</b>	<b>-</b>	<b>514,941</b>
<b>OPERATING DEDUCTIONS</b>				
Operating Expenses	360,742	360,742	-	360,742
Taxes	16,120	16,120	-	16,120
<b>Total Cash Requirements Before Debt Service</b>	<b>376,862</b>	<b>376,862</b>	<b>-</b>	<b>376,862</b>
Cash Available for Debt Service (A)	138,079	138,079	-	138,079
<b>DEBT SERVICE REQUIREMENTS</b>				
Principal & Interest (B)	58,412	58,412	-	58,412
Other Debt	-	-	-	-
Reserve Account @ 10%	1,429	1,429	-	1,429
Renewal & Replacement Fund (2.5%)	8,352	8,352	3,380 (3)	11,732
<b>Total Debt Service Requirement</b>	<b>68,193</b>	<b>68,193</b>	<b>3,380</b>	<b>71,573</b>
SB 234 Cash Working Capital	45,093	45,093	-	45,093
<b>Remaining Cash</b>	<b>24,793</b>	<b>24,793</b>	<b>(3,380)</b>	<b>21,413</b>
Percent Coverage (A) / (B)	236.39%	236.39%		236.39%
Average rate for 3,400 gallons	\$ 30.40	\$ 30.40	\$ -	\$ 30.40
Average rate for 4,000 gallons	\$ 34.98	\$ 34.98	\$ -	\$ 34.98

**Staff Adjustments**

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	<b>Operating Revenues</b>	<b>Per Staff Analysis</b>	<b>463,315</b>	<b>(45,093)</b>
		<b>Per Application with Project</b>	<b>508,408</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>45,093</b>	<b>45,093</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>11,732</b>	<b>3,380</b>
		<b>Per Application with Project</b>	<b>8,352</b>	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			

**TOWN OF CLAY - WATER  
CASH FLOW ANALYSIS  
YEAR ENDED: June 30, 2023  
APPLICATION NO: 2025W-2669  
April 22, 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
	\$	\$	\$	\$
<b>AVAILABLE CASH</b>				
Operating Revenues	508,408	611,277	(45,093) (1)	566,184
Other Operating Revenue	5,966	5,966	-	5,966
SB 234 Annual Working Cash Collections			45,093 (2)	45,093
Interest Income & Other Misc.	567	567	-	567
<b>Total Cash Available</b>	<b>514,941</b>	<b>617,810</b>	<b>-</b>	<b>617,810</b>
<b>OPERATING DEDUCTIONS</b>				
Operating Expenses	360,742	360,742	-	360,742
Taxes	16,120	16,120	-	16,120
<b>Total Cash Requirements Before Debt Service</b>	<b>376,862</b>	<b>376,862</b>	<b>-</b>	<b>376,862</b>
Cash Available for Debt Service (A)	138,079	240,948	-	240,948
<b>DEBT SERVICE REQUIREMENTS</b>				
Principal & Interest (B)	58,412	152,547	720 (3)	153,267
Other Debt	-	-	-	-
Reserve Account @ 10%	1,429	10,843	71 (4)	10,914
Renewal & Replacement Fund (2.5%)	8,352	10,924	3,380 (5)	14,304
<b>Total Debt Service Requirement</b>	<b>68,193</b>	<b>174,314</b>	<b>4,171</b>	<b>178,485</b>
SB 234 Cash Working Capital	45,093	45,093	-	45,093
<b>Remaining Cash</b>	<b>24,793</b>	<b>21,541</b>	<b>(4,171)</b>	<b>17,370</b>
Percent Coverage (A) / (B)	236.39%	157.95%		157.21%
Average rate for 3,400 gallons	\$ 30.40	\$ 36.48	\$ -	\$ 36.48
Average rate for 4,000 gallons	\$ 34.98	\$ 41.98	\$ -	\$ 41.98

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	<b>Operating Revenues</b>	<b>Per Staff Analysis</b>	<b>566,184</b>	<b>(45,093)</b>
		<b>Per Application with Project</b>	<b>611,277</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>45,093</b>	<b>45,093</b>
		<b>Per Application with Project</b>	<b>-</b>	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	<b>Principal &amp; Interest</b>	<b>Per Staff Analysis</b>	<b>153,267</b>	<b>720</b>
		<b>Per Application with Project</b>	<b>152,547</b>	
	The difference in P&I is related to Staff's calculation of a loan of \$1,600,000 for 40 years (paid back over 38 years) at 5%.			
(4)	<b>Reserve Account @ 10%</b>	<b>Per Staff Analysis</b>	<b>10,914</b>	<b>71</b>
		<b>Per Application with Project</b>	<b>10,843</b>	
	Staff assumed a 10% reserve on the new debt.			
(5)	<b>Renewal &amp; Replacement Fund (2.5%)</b>	<b>Per Staff Analysis</b>	<b>14,304</b>	<b>3,380</b>
		<b>Per Application with Project</b>	<b>10,924</b>	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			



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[www.dep.wv.gov](http://www.dep.wv.gov)

**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, 2025

**SUBJECT:** Infrastructure Preliminary Application for the Town of Clay: Water Treatment Plant in Clay County, WV. (2025W-2669)

We have reviewed the above referenced project application information. The Town of Clay, discharges its backwash to its site, which is covered under WV/NPDES Site Registration No. WVG640040, and expires July 18, 2028.

If the Town of Clay 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 Clay 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 Clay 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

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