

### 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							
From: Katheryn Emery, P.E., Engineer Chief Sewer Technical Review Committee							
Date:	June 19, 2025						
Subject:	Northern Wayne County PSD IJDC Application - 2024S-2500 Sanitary Sewer System Improvement Project Phases I & II						
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. <u>√</u>	Consistent with the intent of the Infrastructure and Jobs Development Act and is the most cost-effective, environmentally sound alternative for solving the wastewater 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.						

## 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.

Same as (a) above except that certain issues need to be addressed prior to design

b. \_\_\_ The Funding Committee should recommend that the Council approve the proposed project and its funding plan.

and construction as the attached comments indicate.

c.	The Funding Committee does not need to review the funding assumptions on
	this project. This project will need to be tabled to give time for the PSC to complete the review.

d. This project should be referred to the Consolidation Committee.

### 3. Other remarks:

This is phase one of a two phase project that includes replacing force main and rehabilitation of 4 pump stations(PS AB, C1, C2, and E). The pump stations are 34 years old and the mechanical and electrical equipment are all beyond their expected useful lives. In addition, the design cost for phase II will be included with this project.

Using the Combined Application, the Total Fee appears to be above the ASCE curve and will need a variance.

The total cost for this project is \$22,500,000 and the District intends to pursue a CWSRF Loan for \$7,930,000 at a 0.25% rate for 38 years, a CWSRF Wrap Loan of \$11,000,000 at a 0.25% rate for 38 years, a CWSRF Principle Forgiveness Loan for \$2,000,000, an IJDC Grant for \$1,000,000, a local grant of \$70,000, and a CWSRF Green Funding Forgiveness Loan of \$500,000.

The PSD will need to work with the DEP on the proposed wrap loan scenario. It also appears that the PSD will only qualify for \$1,500,000 in CWSRF principal forgiveness. The program will work with the applicant regarding the CWSRF funding as the project proceeds through the design phase.

**Preliminary Project Ratings:** 

Public Health Benefits: 5 Compliance with Standards: 15



STATE OF WEST VIRGINIA

DEPARTMENT OF HEALTH

BUREAU FOR PUBLIC HEALTH

OFFICE OF ENVIRONMENTAL HEALTH SERVICES

Arvin Singh, EdD, MBA, MS, FACHE Secretary of Health

Jason R. Frame OEHS Director

## MEMORANDUM

**TO:** Meredith J. Vance, Director

**Environmental Engineering Division** 

**FROM:** Patrick Murphy, P.E.

**Environmental Engineering Division** 

**DATE:** June 9, 2025

**SUBJECT:** Northern Wayne County PSD

IJDC Application- 2024S-2500

Sewer System Improvements Phase I and II

Wayne County

**Recommendation:** We have reviewed this preliminary application and recommend that it be forwarded to the Funding Committee for review.

**Project Scope:** Phase I of the proposed Project will consist of replacing the 16-inch force main and rehabilitating the four (4) main pump stations that transport collected flows to Huntington for treatment. Alternatively, the District can implement new odor control only or do nothing. Phase II of the proposed Project will prioritize rehabilitating the additional 11 duplex pump stations. The six (6) small developer-installed grinder pumping stations will be replaced. Odor control may also be addressed in the design phase.

The total project cost is \$22,500,000.00

**Need for the Project:** The entire system, which was designed to serve over 6,000 customers is 34 years old, and the mechanical and electrical equipment (pumps, valves, generators, etc.) are beyond their expected useful lives. Some repairable failures have already occurred, and the WV Department of Environmental Protection (DEP) has cited the district for the resulting release of untreated sewage. Beyond equipment failures and pipeline breaks, the extreme septicity in the collection system is causing severe odor problems for homes and businesses that are near pumping stations and air release valves; at some point, litigation should be expected because of those odors.



Northern Wayne County PSD 2024S-2500 June 9, 2025 Page 2

**Concerns:** No concerns were noted.

**Permits:** Permits expected to be required include: WVDEP NPDES, WVDEP Construction Stormwater; US Army Corps of Engineers, CSX Railrod and WV Department of Health.



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### **MEMORANDUM**

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

**FROM:** Tyler Barrett, DWWM

**DATE:** June 10, 2025

**SUBJECT:** Northern Wayne County PSD

IJDC Application - 2024S-2500

Sanitary Sewer System Improvement Project Phase I

### **RECOMMENDATION**

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

### PROJECT DESCRIPTION

The Northern Wayne County Public Service District (District) is a Class A sanitary sewer utility serving approximately 2,855 residential, industrial and commercial customers in Wayne County, West Virginia. The District provides sewer collection service to the surrounding areas of Lavalette, Northern Wayne County and operates under WV National Pollutant Discharge Elimination System(NPDES) Permit Number WV0089621.

The sewer system consists of approximately 73 miles of force main, 544 force main cleanouts, 21 duplex pumping stations, 1,524 simplex grinder pumping stations, 4 miles of gravity sewer, 82 manholes, and 14 gravity sewer line cleanouts. The collection system conveys to a wastewater treatment plant operated by the City of Huntington, WV, under an Interjurisdictional Agreement with the Huntington Sanitary Board.

This is phase one of a two phase project that includes replacing the 16-inch DIP force main and rehabilitation of pump stations AB, C1, C2, and E. This would involve approximately 14,000 LF

of PVC and 15,500 LF of DIP, along with new air release valves and force main cleanouts. Pump station rehabilitation will consist of rehabilitating or replacing the four main pump stations and replacing them with new wet wells, pumps, controls, and valve vaults. Telemetry, flow meters, valves and generators will be added to each pump station. A new odor and corrosion control system will also be installed at several locations throughout the collection system.

The design cost for phase II will be included with this project.

The proposed total cost is \$22,500,000 and the District intends to pursue a CWSRF Loan for \$7,930,000 at a 0.25% rate for 38 years, a CWSRF Wrap Loan of \$11,000,000 at a 0.25% rate for 38 years, a CWSRF Principle Forgiveness Loan for \$2,000,000, an IJDC Grant for \$1,000,000, a local grant of \$70,000, and a CWSRF Green Funding Forgiveness Loan of \$500,000.

The proposed monthly rate for 3,400 gallons for the District's service areas would be \$89.79 (2.47%).

### NEED FOR PROJECT

The District's collection system was originally designed to serve over 6,000 customers in anticipation of population growth; that growth, however, did not occur, and detention times in the system exceed 36 hours during normal flow periods. Because sewage begins to become anaerobic in as little as 3 to 4 hours, hydrogen sulfide (H<sub>2</sub>S) production has been a serious problem for an extended period. Extensive damage has been done to the DIP mains, precast concrete wetwells, valve vaults and buildings, as well as to the pumps, piping, and controls. Odor complaints have been increasing over time. Odor control and H<sub>2</sub>S suppression using potassium permanganate has been attempted with little success.

In addition, the system is 34 years old, and the mechanical and electrical equipment are all beyond their expected useful lives. Pump failures are becoming more common and are expected to increase greatly in the coming years.

### **DEFICIENCIES/COMMENTS**

- Using the Combined Application, the Design and Total Engineering Fees appear to be above the ASCE Curves.
- Their cybersecurity should be evaluated with this upgrade.

**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

Ms. Kathy Emery, P. E.
Office of Water Resources
Department of Environmental Protection
601 57<sup>th</sup> St.
Charleston, West Virginia 25304

Re: Public Service Commission Staff Review Comments

Application No. 2024S-2500

Northern Wayne County PSD – Sewer System Improvements

Infrastructure Preliminary Application

Dear Ms. Emery:

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:

X 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:vb

# PUBLIC SERVICE COMMISSION STAFF TECHNICAL REVIEW

**DATE:** June 6, 2025

PROJECT SPONSOR: NORTHERN WAYNE COUNTY PUBLIC SERVICE

**DISTRICT - SEWER** 

PROJECT SUMMARY: The proposed project will upgrade lift stations, upgrade

or install new telemetry and emergency at lift stations, replace deteriorating force mains, and perform detailed inspections of grinder pump stations and the gravity

collection systems.

**PROPOSED FUNDING:** CWSRF Principal Forgiveness Loan \$2,000,000

 CWSRF Loan (.25%, .25% AF, 38 yrs.)
 7,930,000

 CWSRF Wrap Loan
 11,000,000

 CWSRF Green Funding
 500,000

 WVIJDC Grant
 1,000,000

 Wayne County Commission Grant
 70,000

 Total
 \$22,500,000

**CURRENT RATES:** \$70.52 3,400 gallons

\$82.96 4,000 gallons

**PROPOSED RATES:** \$89.79 3,400 gallons

\$105.64 4,000 gallons

Application No. 2024S-2500

**RECOMMENDATION:** X forward to the Funding Committee.

\_\_\_\_ forward to the Consolidation Committee.

return to the Applicant.

FINANCIAL: William Nelson

- 1. Current rates (\$70.52 for 3,400 gallons) are above the rates attributable to 1.25% (\$45.53), 1.5% (\$54.64), and 1.75% (\$63.74) of the Median Household Income (MHI), but below the rates attributable to 2.0% (\$72.85) of the MHI. Increasing current rates to 2.0% of the MHI would provide additional revenues of \$94,562.
- 2. Using Scenario 1, the preferred funding package consisting of a CWSRF

Principal Forgiveness Loan of \$2,000,000, a CWSRF Loan of \$7,930,000 at .25%, .25% Admin. Fee, for 38 years, a CWSRF Wrap Loan of \$11,000,000 at .25%, .25% Admin. Fee, for 38 years, a CWSRF Green Funding of \$500,000, a WVIJDC Grant of \$1,000,000, and a Wayne County Commission Grant of \$70,000, proposed rates (\$89.79 for 3,400 gallons) will provide a cash flow surplus of \$234,890 and debt service coverage of 192.65%.

3. Using the Scenario 2 alternate loan package of \$22,430,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), and committed funds consisting of a Wayne County Commission Grant of \$70,000, proposed rates (\$118.42 for 3,400 gallons) will provide a cash flow surplus of \$153,361 and debt service coverage of 139.16%.

### 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, 2024, and the applicant's Rule 42 Exhibit submitted with the application.
- D. The Applicant's Cash Flow Analyses reflect going level rates of \$72.42 for 3,400 gallons. However, these rates which represent Step 4 rates approved in Case No. 22-1076-PSD-19A are not to become effective until January 1, 2026. The current rates (Step 3, Case No. 22-1076-PSD-19A), which became effective January 1, 2025, and are being charged by the PSD are \$70.52 for 3,400 gallons. Thus, the Applicants Going Level bill analysis reflect rates that are not currently in effect as of this date. Staff's analysis reconciles to the Applicant's revenues and reflects these rates at Going Level.
- 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: Mansour Mashayekhi

- 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: Phase I (<u>Alternative-1</u>), the proposed project will upgrade 4 main sewage pumping stations (replace pumps, piping, valves, and controls), upgrade or install new telemetry and emergency generators at 15 pumping stations, replace 25,000 LF of deteriorating 16-inch DIP force mains, and perform detailed inspections of simplex grinder pumping stations and the six-gravity collection systems. Phase II (<u>Alternative-1</u>), of the proposed Project will prioritize rehabilitating additional 11 duplex pump stations. This Alternative proposes replacing the pumps, controls, valves, and telemetry of Pump Stations 1-11. The six (6) small developer-installed grinder pumping stations will be replaced. Odor control process may also be addressed in the design phase. The proposed project is estimated to cost approximately \$17,880,000 in construction with an estimated total project budget of \$22,500,000.
- 3. Need for Project: The entire collection system, which was designed to serve over 6,000 customers, is 34 years old, the mechanical and electrical equipment (pumps, valves, generators, etc.) are beyond their expected useful lives. Because of severe septicity, the pumping stations (including the precast concrete wet-wells, building and valve vaults) and the 5 miles of 16 inch and 24-inch DIP force mains are severely corroded and likely to fail catastrophically. The WV Department of Environmental Protection (DEP) has cited the District for release of untreated sewage. When, additional failures of either the four largest pumping stations or the three miles of 16 inch and 24-inch DIP force main that underlie US Route 60 (James River Turnpike) and the CSX Railroad 15 tracks beside Interstate 64, large releases of untreated sewage will occur, and those releases will be time consuming and very expensive to repair.

- 4. Customer Density: This is an improvement and an upgrade project; therefore, customer density will stay unchanged.
- 5. Cost per Customer: Based upon the estimated project budget of \$22,500,000 and having approximately 2,852 existing customers, cost-per-customer is approximately \$7,889. However, the loan portion of cost-per-Customer will be approximately \$14.56 plus interest and administrative expenses.
- 6. Project Feasibility: The project appears to be technically feasible.
- 7. Project Alternatives: Phase I: (Alternative-1, Alternative-2, Alternative-3, and Alternative-4), Alternate-1 (recommended) of the proposed Project will consist of replacing the 16-inch force main and rehabilitating the four (4) main pump stations that transport collected flows to Huntington for treatment. Phase II (Alternative-1 and Alternative-2): Alternative-1 (recommended) of the proposed Project will prioritize rehabilitating the additional 11 duplex pump stations. This Alternative proposes replacing the pumps, controls, valves, and telemetry of Pump Stations 1-11. The six (6) small developer-installed grinder pumping stations will be replaced. Odor control may also be addressed in the design phase. The District's recommended Alternatives for each phase were selected based on the District's urgent need for proactive upgrades and improvements. The cost of emergency repair and fees would far outweigh the financial benefit of foregoing the Project.
- 8. Consolidation: There are no consolidation issues with the selected alternatives.
- 9. Inconsistencies: None was noticed for this project.
- 10. Project Permits: The following permits and certificates are anticipated to be required for this project and will be obtained prior to beginning of the construction: WV Department of Environmental Protection (NPDES and construction Storm Water Permits), WV Department of Transportation (Utility Encroachment Permit), CSX Railroad (Utility Crossing Permit). Coordination will occur with the following Agencies: WV Division of Culture and History, WV Division of Natural Resources, United States Fish and Wildlife Service.

- 11. Operation and Maintenance (O&M) Expenses: The project does not propose to add new customers. The project's O&M expenses are expected to increase by approximately \$349,596 to an annual O&M expense of \$2,332,041.
- 12. Engineering Agreement: the applicant has provided documentation relative to compliance with <u>West Virginia Code</u> §5G-1-1, et seq. Based on the filing, the total design fees for the engineering services are \$1,065,000 at the construction cost of \$17,880,000. This is approximately 5.96% of the construction cost as shown on the application.

# PREFERED FUNDING PACKAGE SCENARIO 1

NORTHERN WAYNE COUNTY PSD - SEWER CASH FLOW ANALYSIS YEAR ENDED: June 30, 2024 APPLICATION NO: 2024S-2500

June 9, 2025	Rule 42 Going Level Per Application Before Project	Rule 42 Proforma Per Application with Project	Staff Adjustments	Per Staff Analysis
	\$	2 \$	3 \$	4 \$
AVAILABLE CASH				
Operating Revenues	2,918,860	3,619,104	(291,505)	(1) 3,327,599
Other Operating Revenue	74,582	74,582	-	74,582
SB 234 Annual Working Cash Collections Interest Income & Other Misc.	- 33,103	33,103	291,505	(2) 291,505 33,103
interest income a Other Misc.	33,103	33,103	-	33,103
Total Cash Available	3,026,545	3,726,789	-	3,726,789
OPERATING DEDUCTIONS				
Operating Expenses	1,982,445	2,332,041	251	(3) 2,332,292
Taxes	45,416	45,416	-	45,416
Total Cash Requirements Before				
Debt Service	2,027,861	2,377,457	251	2,377,708
Cash Available for Debt Service (A)	998,684	1,349,332	(251)	1,349,081
DEDT OF DIVIOE DECLUDEMENTS				
DEBT SERVICE REQUIREMENTS Principal & Interest (B)	481,270	700,045	239	(4) 700,284
Other Debt	15,446	15,446	-	15,446
Reserve Account @ 10%	-	80,000	(58,099)	(5) 21,901
Renewal & Replacement Fund (2.5%)	75,664	93,170	(8,115)	(6) 85,055
Total Debt Service Requirement	572,380	888,661	(65,974)	822,686
SB 234 Cash Working Capital	247,806	291,505	-	291,505
Remaining Cash	178,498	169,166	65,723	234,890
<b>3</b>				
Percent Coverage (A) / (B)	207.51%	192.75%		192.65%
Average rate for 3,400 gallons	\$ 72.42	\$ 89.79	\$ -	\$ 89.79
Average rate for 4,000 gallons	\$ 85.20	\$ 105.64	\$ -	\$ 105.64

NORTHERN WAYNE COUNTY PSD - SEWER CASH FLOW ANALYSIS YEAR ENDED: June 30, 2024

**APPLICATION NO: 2024S-2500** 

replacement fund.

Attachment A
PREFERED FUNDING PACKAGE
SCENARIO 1

Increase

### **Staff Adjustments**

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

	Adjustment Description		\$	<decrease></decrease>			
(1)	Operating Revenues	Per Staff Analysis Per Application with Project	3,327,599 3,619,104	(291,505)			
	Adjust revenues in accordance with PSC General Order 183.11.						
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis Per Application with Project	291,505 -	291,505			
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.						
(3)	Operating Expenses	Per Staff Analysis Per Application with Project	2,332,292 2,332,041	251			
	Staff's calculation included a difference in the Administrative Fee associated with a \$7,930,000 CWSRF loan.						
(4)	Principal & Interest	Per Staff Analysis Per Application with Project	700,284 700,045	239			
	The difference in P&I is related to Staff's calculation of a loan of \$7,930,000 for 38 years at .25%.						
(5)	Reserve Account @ 10%	Per Staff Analysis Per Application with Project	21,901 80,000	(58,099)			
	Staff assumed a 10% reserve on the new debt.						
(6)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis Per Application with Project	85,055 93,170	(8,115)			

### LOAN PACKAGE SCENARIO 2

### NORTHERN WAYNE COUNTY PSD - SEWER CASH FLOW ANALYSIS YEAR ENDED: June 30, 2024 APPLICATION NO: 2024S-2500

APPLICATION NO: 2024S-2500						
June 9, 2025		Max Rate	Max Rate			
		Going Level	Proforma			
		Per Application	er Application	Staff		Per Staff
	_	Before Project	with Project	Adjustments		Analysis
		1	2	3		4
		\$	\$	\$		\$
AVAILABLE CASH						
Operating Revenues		2,918,860	4,772,948	(291,505)	(1)	4,481,443
Other Operating Revenue		74,582	74,582	-		74,582
SB 234 Annual Working Cash Collections		-	-	291,505	(2)	291,505
Interest Income & Other Misc.		33,103	33,103	-		33,103
Total Cash Available	_	3,026,545	 4,880,633	-		4,880,633
OPERATING DEDUCTIONS						
Operating Expenses		1,982,445	2,332,041	(10,091)	(3)	2,321,950
Taxes		45,416	45,416	-	(0)	45,416
Total Cash Requirements Before	_		 			
Debt Service		2,027,861	2,377,457	(10,091)		2,367,366
Cash Available for Debt Service (A)	_	998,684	2,503,176	10,091		2,513,267
DEBT SERVICE REQUIREMENTS						
Principal & Interest (B)		481,270	1,783,201	22,878	(4)	1,806,079
Other Debt		15,446	15,446	· -	` '	15,446
Reserve Account @ 10%		, -	130,193	2.782	(5)	132.975
Renewal & Replacement Fund (2.5%)		75,664	122,016	(8,115)	(6)	113,901
Total Debt Service Requirement	_	572,380	 2,050,856	17,545		2,068,400
SB 234 Cash Working Capital		247,806	291,505	-		291,505
Remaining Cash	_	178,498	 160,815	(7,454)		153,361
Tomaning Guon	_	170,400	 100,010	(1,101)		
Percent Coverage (A) / (I	3)	207.51%	140.38%			139.16%
Average rate for 3,400 gallons	\$		\$ 118.42	\$ -		\$ 118.42
Average rate for 4,000 gallons	\$	85.20	\$ 139.32	\$ -		\$ 139.32

### **NORTHERN WAYNE COUNTY PSD - SEWER CASH FLOW ANALYSIS** YEAR ENDED: June 30, 2024

replacement fund.

Attachment B **LOAN PACKAGE SCENARIO 2 APPLICATION NO: 2024S-2500** 

Increase

### **Staff Adjustments**

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

<u> </u>	Adjustment Description		\$	<decrease></decrease>			
(1)	Operating Revenues	Per Staff Analysis Per Application with Project	4,481,443 4,772,948	(291,505)			
	Adjust revenues in accordance with PSC General Order 183.11.						
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis Per Application with Project	291,505 -	291,505			
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.						
(3)	Operating Expenses	Per Staff Analysis Per Application with Project	2,321,950 2,332,041	(10,091)			
	Staff's calculation removes the Administrative Fee for Scenario 2.						
(4)	Principal & Interest	Per Staff Analysis Per Application with Project	1,806,079 1,783,201	22,878			
	The difference in P&I is related to Staff's calculation of a loan of \$22,	430,000 for 40 years (paid back over 3	8 years) at 5	%.			
(5)	Reserve Account @ 10%	Per Staff Analysis Per Application with Project	132,975 130,193	2,782			
	Staff assumed a 10% reserve on the new debt.						
(6)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis Per Application with Project	113,901 122,016	(8,115)			