



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: December 12, 2024

Subject: Greenbrier PSD #1
IJDC Application - 2024S-2622
Meadowbrook Estates Subdivision Sewer Replacement

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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 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.
 - 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.

- 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 proposed project will include the decommissioning of the polishing pond, and the installation of a new 15,000 gpd package treatment plant. The existing system received Order No.7944 to immediately take measures to become compliant.

Greenbrier PSD #1 should seek full ownership of the existing facilities as soon as possible. CWSRF funding will not be an eligible funding source without the PSD's ownership of the system.

The provided cash flow did not include the cash working capital reserve funding. If this funding was included, the District would have a cash flow deficit. The District should review this as the project proceeds forward.

The proposed total cost for this project is \$2,500,000 and the proposed funding sources are a \$500,000 WV IJDC Grant, \$1,250,000 in CWSRF principal forgiveness, and a \$750,000 WDA EEGF grant.

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

Preliminary Project Ratings:

Public Health Benefits: 20
Compliance with Standards: 20



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MEMORANDUM

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

FROM: Chantz Rankin, E.I., DWWM

DATE: December 6, 2024

SUBJECT: Greenbrier PSD #1
IJDC Application - 2024S-2622
Meadowbrook Estates Subdivision Sewer Replacement

RECOMMENDATION

The IJDC Application and Preliminary Engineering Report (PER) prepared by Criss Haynes P.E. for the above referenced project has been reviewed and is technically feasible.

PROJECT DESCRIPTION

Meadowbrook Estates is a 31 acre development in Greenbrier County, WV. The development owns and operates a gravity sewer system and a 20,000 gallon per day (gpd) extended aeration package plant. Additionally, the treatment system includes a polishing pond, UV disinfection unit, and post aeration unit. The gravity sewer system includes approximately 1,400 linear feet (LF) of 8” sewer line, approximately 3,750 LF of 6” sewer line, and several manholes. The system received a health department permit in 1976, and currently is permitted under National Pollution Discharge Elimination System (NPDES) No. WV0103110 to treat up to 20,000 gpd.

The proposed project will include the installation of approximately 5,600 LF of 8” sewer line, thirty-two (32) manholes, a box culvert, the removal and restoration of the polishing pond, and the installation of a new 15,000 gpd package treatment plant.

The proposed total cost for this project is \$2,500,000. Greenbrier PSD#1 intends to pursue a \$500,000 WV IJDC Grant, a \$1,250,000 CWSRF Principal Forgiveness Loan, and a \$750,000 WDA Economic Enhancement Grant. The proposed monthly rate for 3,400 gallons is \$48.11 (1.27% MHI).

NEED FOR PROJECT

The Meadowbrook Estates collection system has remained unchanged since it was installed in the late 1970s. The system includes multiple stream crossings above grade that are encased in corrugated metal pipe, which due to the age of the system is severely deteriorated. Reworking the stream crossings will prevent potential failure in the collection system. In 2013 the homeowners of the development requested help from the WVDEP and Greenbrier PSD #1. The system at the time was not in compliance and experienced operation and maintenance issues. Grant funding was obtained, however the project did not move past the approval of the plans and specifications.

The package plant that serves the collection system has had improvements to the existing system, however the plant has continued to have operational issues. The package plant is currently under consent Order No.7944, which ordered Meadowbrook Estates to “Immediately take measures to initiate compliance with all terms and conditions of its WV/NPDES permit”; Meadowbrook Estates has also received multiple Notice of Violations (NOVs) for BOD5, fecal coliform and ammonia nitrogen.

This project will rectify the noncompliance with WV/NPDES permit by transferring operation and maintenance over to Greenbrier PSD #1. The PSD does extensive regular maintenance of its facilities and is better financially suited to take care of the new system’s O&M costs. The project will also be beneficial to public health by reducing the risk of potential discharges into the local streams from failing system components.

DEFICIENCIES/COMMENTS

- Using the Combined Application, the Design, and Total Engineering Fees appear to be within the ASCE Curves.
- Flood elevations, peak flow rates, and irreversible impacts should be discussed for the proposed construction in the Facilities Plan.
- Greenbrier PSD #1 should include the agreement of ownership before the bidding of the project.

Preliminary Project Ratings:

Public Health Benefits: 20
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



December 11, 2024

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

Re: Public Service Commission Staff Review Comments
Application No. 2024S-2622
Greenbrier County PSD No.1 - Sewer System Extension
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:

- Forward the Application
- Return the Application
- 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: December 10, 2024

PROJECT SPONSOR: GREENBRIER COUNTY PSD NO. 1 - SEWER

PROJECT SUMMARY: Extension of wastewater service to an area known as Meadowbrook Estates. The area currently has its own wastewater facility that is beyond its useful life, deteriorated and not functioning properly.

PROPOSED FUNDING: CWSRF Principal Forgiveness	\$1,250,000
IJDC District 3 Grant	\$ 500,000
WDA Economic Enhancement Grant Fund	<u>\$ 750,000</u>
Total	<u>\$2,500,000</u>

CURRENT/ PROPOSED RATES:	\$48.11	3,400 gallons
	\$55.76	4,000 gallons

Application No. 2024S-2622

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

FINANCIAL: Stephen Edens

1. Current rates (\$48.11 for 3,400 gallons) are above the rates attributable to 1.25% (\$41.47) of the Median Household Income (MHI), but below the rates attributable 1.5% (\$49.76), 1.75% (\$58.05), and 2.0% (\$66.35) of the MHI. Increasing current rates to 1.5%, 1.75% and 2.0% of the MHI would provide additional revenues of \$102,397, \$617,449 and \$1,132,501 respectively.
2. Using Scenario 1, the preferred funding package consisting of a CWSRF Principal Forgiveness of \$1,250,000, a \$500,000 IJDC District 3 Grant, and a WDA Economic Enhancement Grant of \$750,000, proposed rates (\$48.11 for 3,400 gallons) will provide a cash flow surplus of \$117,088 and debt service coverage of 121.01%.

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 (\$49.94 for 3,400 gallons) will provide a cash flow surplus of \$63,844 and debt service coverage of 114.7%. An additional 0.1% (for a total of \$49.99 for 3,400 gallons) increase in proposed rates will be required in order to provide a cash flow surplus of \$67,061 and debt service coverage of 115.01%.

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 Cash Flow Statement submitted with the application.

D. Staff notes the Applicant is requesting a waiver of Rule 42 Exhibit requirement.

E. Staff notes the Project Accountant based its calculations for 33 new customers on the Cash Flow Exhibit. However, the Administrator Preliminary Application and Preliminary Engineering Report lists 32 new customers. Staff reflected the 32 new customers in its analysis.

F. 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 do not include funding for the 1/8 cash working capital reserve. The project sponsor would need to have non-restricted funds available to meet the 1/8 requirement, otherwise, they may need to take steps to fund this reserve. This 1/8 requirement, along with any steps taken to fund this reserve, may be evaluated by the Commission in future filings in accordance with Public Service Commission General Order 183.11.

- G. It should be noted that the District's current rates were approved in Case No. 20-0779-PSD-CN and became effective for service rendered on and after July 17, 2024. The District was ordered to fund its cash working capital reserve by applying a percentage of 7.69% to total monthly collections of sales, forfeited discounts and the cash working capital increment and deposit those amounts into a separate cash working capital reserve bank account. As noted in Comment No. 4F, the cash flows provided by the project sponsor do not include cash working capital reserve funding. If the funding for the cash working capital reserve is included the District would have a cash flow deficit.
- H. It's our understanding that the District's Certified Public Account (CPA) will need to provide a CPA Certificate, for project closing, if a Principal Forgiveness Loan is included in project funding. The District should carefully review its financial situation to ensure its rates are adequate and take appropriate action, if necessary, so its proposed project is not unnecessarily delayed.

ENGINEERING: Jim Spurlock

1. This project will not require a Certificate of Convenience and Necessity from the PSC.
2. Scope: Greenbrier County PSD #1 proposes to replace the wastewater treatment plant and collection system in Meadowbrook Estates. Meadowbrook Estates is a residential development with its own sewage facilities that serve 32 residences. The project has been needed for years due to the condition and performance of the system. The project was attempted approximately 10 years ago but did not come to fruition due to funding issues.

Customer Density: 31 customers/mile (acceptable)

Cost per Customer: \$78,125 (taken from the total project cost estimate of \$2,500,000 spread over 32 new customers).

3. Project Feasibility: The project is technically feasible. The cost per customer is acceptable. The project will address an aged and deteriorated

sewer system which is currently operated by residents, and is under a consent order from WVDEP.

4. Project Alternatives: Connection of the subdivision to the District's existing facilities was ruled out due to the large distance and logistical issues which would be involved. A final selection has not been made for the type of treatment system. The cost estimate incorporates an extended aeration plant, which was the method chosen in the previous project attempt. Information is still being gathered for three other treatment technologies: SBR, biological membrane, and attached growth trickling filter.
5. Consolidation: No consolidation opportunities are presented by the project.
6. Inconsistencies: None were noted.
7. Operation and Maintenance (O & M) Expenses: O & M expenses for the new sewer system are projected to be \$32,880. Supporting calculations were 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 \$225,000, which is equal to 10.58% of the construction cost of \$2,126,000 (including contingency).

GREENBRIER COUNTY PSD NO. 1 - SEWER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2024
 APPLICATION NO: 2024S-2622
 December 11, 2024

**PREFERED 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	2,899,515	2,918,567	(578) (1)	2,917,989
Other Operating Revenue	45,218	45,218	-	45,218
SB 234 Annual Working Cash Collections			-	-
Interest Income & Other Misc.	62,319	62,319	-	62,319
Total Cash Available	3,007,052	3,026,104	(578)	3,025,526
OPERATING DEDUCTIONS				
Operating Expenses	1,859,249	1,892,129	-	1,892,129
Taxes	32,248	32,248	-	32,248
Total Cash Requirements Before Debt Service	1,891,497	1,924,377	-	1,924,377
Cash Available for Debt Service (A)	1,115,555	1,101,727	(578)	1,101,149
DEBT SERVICE REQUIREMENTS				
Principal & Interest (B)	909,981	909,981	-	909,981
Other Debt			-	-
Reserve Account @ 10%			-	-
Renewal & Replacement Fund (2.5%)	73,618	74,095	(15) (2)	74,080
Total Debt Service Requirement	983,599	984,076	(15)	984,061
SB 234 Cash Working Capital			-	-
Remaining Cash	131,956	117,651	(563)	117,088
Percent Coverage (A) / (B)	122.59%	121.07%		121.01%
Average rate for 3,400 gallons	\$ 48.11	\$ 48.11	\$ -	\$ 48.11
Average rate for 4,000 gallons	\$ 55.76	\$ 55.76	\$ -	\$ 55.76

**GREENBRIER COUNTY PSD NO. 1 - SEWER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2024
 APPLICATION NO: 2024S-2622**

**Attachment A
 PREFERRED FUNDING PACKAGE
 SCENARIO 1**

Staff Adjustments

<u>Adjustment Description</u>		\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis Per Application with Project	2,917,989 2,918,567
	To adjust revenues to reflect 32 new customers not 33 new customers.		
(2)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis Per Application with Project	74,080 74,095
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.		

GREENBRIER COUNTY PSD NO. 1 - SEWER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2024
 APPLICATION NO: 2024S-2622
 December 11, 2024

**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
	\$	\$	\$	\$
<u>AVAILABLE CASH</u>				
Operating Revenues	2,899,515	3,031,191	2,700 (1)	3,033,891
Other Operating Revenue	45,218	45,218	-	45,218
SB 234 Annual Working Cash Collections			-	-
Interest Income & Other Misc.	62,319	62,319	-	62,319
Total Cash Available	3,007,052	3,138,728	2,700	3,141,428
<u>OPERATING DEDUCTIONS</u>				
Operating Expenses	1,859,249	1,892,129	-	1,892,129
Taxes	32,248	32,248	-	32,248
Total Cash Requirements Before Debt Service	1,891,497	1,924,377	-	1,924,377
Cash Available for Debt Service (A)	1,115,555	1,214,351	2,700	1,217,051
<u>DEBT SERVICE REQUIREMENTS</u>				
Principal & Interest (B)	909,981	1,054,640	3,552 (2)	1,058,192
Other Debt			-	-
Reserve Account @ 10%			14,821 (3)	14,821
Renewal & Replacement Fund (2.5%)	73,618	76,910	68 (4)	76,978
Total Debt Service Requirement	983,599	1,131,550	18,441	1,149,990
SB 234 Cash Working Capital			-	-
Remaining Cash	131,956	82,801	(15,741)	67,061
Percent Coverage (A) / (B)	122.59%	115.14%		115.01%
Average rate for 3,400 gallons	\$ 48.11	\$ 49.94	\$ 0.05	\$ 49.99
Average rate for 4,000 gallons	\$ 55.76	\$ 57.88	\$ 0.06	\$ 57.94

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	3,033,891	2,700
		Per Application with Project	3,031,191	
<p>Staff projected an additional \$2,700 in revenues would be needed to achieve 115% debt coverage and a positive cash balance.</p>				
(2)	Principal & Interest	Per Staff Analysis	1,058,192	3,552
		Per Application with Project	1,054,640	
<p>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%.</p>				
(3)	Reserve Account @ 10%	Per Staff Analysis	14,821	14,821
		Per Application with Project	-	
<p>Staff assumed a 10% reserve on the new debt.</p>				
(4)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	76,978	68
		Per Application with Project	76,910	
<p>Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.</p>				