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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  
Funding Committee  
Infrastructure and Jobs Development Council

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

**Date:** July 21, 2022

**Subject:** Marshall County Sewerage District  
Preliminary Application: 2022S-2176  
Ph. II – Mozart Area Sewer Extension

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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 funding should be tabled until technical comments have been resolved.
- d. \_\_\_ This project should be referred to the Consolidation Committee.

3. Other remarks:

The proposed project will eliminate the Pin Oak WWTP and send the flow to the City of Wheeling for treatment. The project will also extend sewer service to 19 additional customers. The total project cost is \$4,100,000 and the proposed funding sources are a \$1,100,000 CWSRF loan, a \$1,500,000 CWSRF principal forgiveness loan, a \$1,000,000 Marshall County Commission grant, and a \$500,000 IJDC grant.

For the purposes of this memo, since the proposed rates are less than 1.5% MHI, the loan terms would be 2.75% interest, 0.25% admin fee, for a term of 20 years. The District needs to reach out to the CWSRF program to discuss further funding options.

A total engineering fee variance will be required.

Attachments: Technical Comments

**Engineering Fees:**

Estimated construction cost =	\$ 2,980,000
Consultant's design fee =	\$ 240,000
Design fee percentage =	8.1%
Design fee per ASCE curve =	9.2%
Consultant's total fee =	\$ 698,500
Total fee percentage =	23.4%
Total fee per ASCE curve =	19.8%

**Preliminary Project Ratings:**

1. Public Health Benefits	5
3. Compliance with Standards	5
5. O & M Capabilities	3
6. Readiness to Proceed	0
8. Cost Effectiveness	0
10. Compliance with PSC Orders	0



STATE OF WEST VIRGINIA  
DEPARTMENT OF HEALTH AND HUMAN RESOURCES  
Bureau for Public Health  
Office of Environmental Health Service

Bill J. Crouch  
Cabinet Secretary

Ayne Amjad, MD, MPH  
Commissioner & State Health Officer

**MEMORANDUM**

**TO:** Jason Billups, P.E.  
DEP/Infrastructure Sewer Technical Review Committee

**FROM:** William S. Herold, Jr., P.E., Assistant Manager  
I/CD/Environmental Engineering Division

**DATE:** July 1, 2022

**SUBJECT:** Marshall County Sewerage District  
Preliminary Application **Project No.: 2022S-2176**  
Pin Oaks Sewer Line Extension  
Marshall County

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**RECOMMENDATION:**

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

**PROJECT SCOPE:**

This preliminary application is to abandon the existing Pin Oaks WWTP and install a sewer extension to the City of Wheeling sewage system. Major work will consist of the removal and replacement of 4,000 LF of 8" PVC sewer line; installation of approximately 4,400 LF of 8" sewer line; installation of approximately 3,000 LF of 8" and 2,700 LF of 4" HDPE force main; and two (2) sewage pump stations.

The cost per customer is \$4,092. Total estimated project cost is \$4,100,000 (IJDC Grant: \$500,000; CWSRF Principal Forgiveness: \$1,500,000; Local/City/Council: \$1,000,000; and CWSRF Loan: \$1,100,000 @ 2.00% for 30 years).

**NEED FOR PROJECT:**

The Preliminary Engineering Report indicates the existing Pin Oaks WWTP is failing.

**CONCERNS:**

None.

**PERMITS:**

A permit **will not be** required from the WV Bureau for Public Health prior to construction.



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Harold D. Ward, Cabinet Secretary  
dep.wv.gov

**MEMORANDUM**

**TO:** Kathy Emery, P.E., Director, DWWM

**FROM:** Daniel S. Bailey, E.I., CFM, DWWM

**DATE:** July 13, 2022

**SUBJECT:** Marshall County Sewerage District  
Preliminary Application: IJDC No. 2022S-2176  
Phase II - Mozart Area Sanitary Sewer Extension Project

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**RECOMMENDATION**

The IJDC application and Preliminary Engineering Report (PER) prepared by The Thrasher Group for the above referenced project has been reviewed and is technically feasible.

**PROJECT DESCRIPTION**

The Marshall County Sewerage District (MCSD) owns and operates sanitary sewer collection systems and 8 wastewater treatment plants (WWTPs) in Marshall County, WV, serving a total of 940 residential, 40 commercial, and 3 industrial customers. The MCSD manages approximately 21 miles of gravity sewer lines, 5 lift stations, 12 grinder stations, and just under a mile of force main.

The proposed project consists of installing a new pump station to replace the existing Pin Oak WWTP, replace/relocate an existing pump station, construction of collection lines (gravity and force main), and necessary appurtenances to convey the collected sewer to the City of Wheeling WWTP. This project will provide service to approximately 19 new residential customers.

The proposed total cost for this project is \$4,100,000 and the Town intends to pursue a \$500,000 IJDC Grant, \$1,100,000 CWSRF Loan (30-year at 2%), \$1,500,000 CWSRF Debt Forgiveness, and a \$1,000,000 Marshall County Commission Grant (already committed). The

current residential rate for 3,400 gallons is \$51.33 (1.36% MHI) with a proposed increase to \$61.84 (1.64% MHI) (2015 Census data for the Mozart area).

### **NEED FOR PROJECT**

The PER indicates that Marshall County Sewerage District has expressed interest in the removal of the Pin Oak WWTP, which provides service to approximately 57 customers. The treatment plant is currently failing and could cause concerns to the environment. There are also residents in the project area that currently do not have access to a sanitary sewer collection system. The residents of these areas are currently using privately owned and operated septic systems or home aeration units. The proposed project will allow the residents in Mount Olivet and Allendale to acquire adequate sanitary sewage collection. The residents currently served by the Pin Oak Subdivision Wastewater Treatment Plant will continue receiving sanitary sewer service.

### **DEFICIENCIES/COMMENTS**

- Should this project be approved for CWSRF funding, additional planning will be required to complete a facilities plan prior to project design. Also a public meeting will be required to be held.
- A total fee variance for total engineering services will be required.

#### **Engineering Fees:**

Estimated construction cost =	\$ 2,980,000
Consultant's design fee =	\$ 240,000
Consultant's total fee =	\$ 698,500
Design fee percentage =	8.1 %
Design fee per ASCE curve =	9.2 %
Total fee percentage =	23.4%
Total fee per ASCE curve =	19.8%

#### **Preliminary Project Ratings:**

Public Health Benefits:	5
Compliance with Standards:	5

# 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. 2022S-2176  
Marshall County Sewerage District  
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 the District's current financial condition, we are recommending the application be:

- forwarded to the Funding Committee  
 forwarded to the Consolidation Committee  
 table the application

Please advise if you have any questions.

Sincerely,

  
Jonathan M. Fowler, P.E.  
Engineering Division

JMF:vb

**PUBLIC SERVICE COMMISSION STAFF  
TECHNICAL REVIEW**

**DATE:** July 5, 2022

**PROJECT SPONSOR:** MARSHALL COUNTY SEWERAGE DISTRICT

**PROJECT SUMMARY:** The project consists of the installation of two pump stations, decommissioning of the Pin Oaks WWTP and sanitary sewerline extension to serve 19 new customers

<b>PROPOSED FUNDING:</b>	Marshall County Commission Grant	\$1,000,000
	WV IJDC Grant	\$ 500,000
	CWSRF Debt Forgiveness	\$1,500,000
	CWSRF Loan (1.75%, .25% Admin. Fee, 30 yrs.)	<u>\$1,100,000</u>
	<b>Total</b>	<b><u>\$4,100,000</u></b>

**CURRENT RATES:**

<b>Schedule I</b>	\$45.35	3,400 gallons (Min. Bill based on 4,000 gals.)
	\$45.35	4,000 gallons
<b>Schedule II</b>	\$51.33	3,400 gallons
	\$54.91	4,000 gallons
<b>Schedule IV</b>	\$45.43	3,400 gallons (Min. Bill based on 4,000 gals.)
	\$45.43	4,000 gallons
<b>Schedule V</b>	\$27.88	3,400 gallons
	\$32.80	4,000 gallons

**PROPOSED RATES:**

<b>Schedule I</b>	\$54.65	3,400 gallons (Min. Bill based on 4,000 gals.)
	\$54.65	4,000 gallons
<b>Schedule II</b>	\$61.84	3,400 gallons
	\$66.15	4,000 gallons
<b>Schedule IV</b>	\$54.74	3,400 gallons (Min. Bill based on 4,000 gals.)
	\$54.74	4,000 gallons
<b>Schedule V</b>	\$33.59	3,400 gallons
	\$39.52	4,000 gallons

Application No. 2022S-2176

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

## **FINANCIAL: Stephen Edens**

1. Current average rates (\$42.50 for 3,400 gallons) are below the rate attributable to 1.25% (\$47.06), 1.5% (\$56.48), 1.75% (\$65.89) and 2.0% (\$75.30) of the Median Household Income (MHI). Increasing current rates to 1.25%, 1.5%, 1.75% and 2.0% of the MHI would provide additional revenues of \$70,181, \$214,906, \$359,631 and \$504,356 respectively.
2. Using Scenario 1, the preferred funding package consisting of a Marshall County Commission Grant of \$1,000,000, a WV IJDC Grant of \$500,000, a CWSRF Debt Forgiveness of \$1,500,000 and a CWSRF Loan of \$1,100,000 at 1.75%, .25% Administrative Fee, for 30 years, proposed average rates (\$51.20 for 3,400 gallons) will provide a cash flow surplus of \$20,639 and debt service coverage of 175.34%.
3. Using the Scenario 2 alternate loan package of \$3,100,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), and committed funds consisting of a Marshall County Commission Grant of \$1,000,000, proposed average rates (\$51.20 for 3,400 gallons) will provide a cash flow deficit of \$127,896 and debt service coverage of 114.04%. An additional 16.2% (for a total of \$59.49 for 3,400 gallons) increase in proposed average rates will be required in order to provide a cash flow surplus of \$317 and debt service coverage of 147.97%.

### **NOTES TO COMMENTS:**

- A. Staff's detailed adjustments are listed on Attachment A for Scenario 1 (Preferred Funding Package), Attachment B for Scenario 2 (Loan Package), and Attachment C for Scenario 3 (Alternate Funding 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, 2021, and the Applicant's Rule 42 Exhibit submitted with the application.
- D. It should be noted that the Draft Rule 42 notes the Marshall County Commission has substantially subsidized the District and without that annual commitment a significant increase would be required.

- E. The Applicant did not provide a Cash flow Analysis or other financial information for Scenario 2. However, Staff calculated its Cash flow Analysis for Scenario 2 using the Applicant's proposed average rate.
- F. Staff used the MHI for Marshall County of \$45,182 from the 2015 U.S. Census versus the MHI of \$29,276 that was listed in the application.
- G. Staff notes the Applicant has reflected a going-level adjustment for revenues to reflect billing discrepancies with Marshall County PSD #2 and to allow for the unfunded Working Cash Capital Reserves. For purposes of this review, Staff has accepted and used this adjustment in its analysis.
- H. Staff has included a Scenario 3 analysis. Staff notes that the project sponsor is proposing a CWSRF Loan at 2%, .25% Administrative Fee, for 30 years. Since proposed average target rates of \$51.20 (3,400 gallons) are less than 1.5% of MHI (\$56.48), the terms of this proposed CWSRF loan would typically be 2.75%, .25% Admin. Fee, for 20 years, for the preferred funding package. If the preferred funding package is adjusted for this change, proposed average target rates (\$51.20 for 3,400 gallons) would provide a cash flow deficit of \$6,652 and debt service coverage of 159.59%. An additional 0.9% (for a total of \$51.66 for 3,400 gallons) increase in proposed average target rates will be required in order to provide a cash flow surplus of \$173 and debt service coverage of 162.13%.
- I. 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:** James W. Ellars

1. This project will require a Certificate of Convenience and Necessity from the PSC. The project sponsor should reference this application number on the PSC's Form No. 4 when its application is filed at the Commission given the requirement of West Virginia Code 24-2-11 (c) and (e). Staff notes that an affirmative determination of need for the project must be established in a Certificate filing at the PSC.

2. Scope: Includes 1) the installation of two new pump stations; 2) decommissioning of the Pin Oaks WWTP; and 3) a sanitary sewer line extension to serve 19 new customers. Wastewater will be conveyed to the City of Wheeling for treatment. More specifically, the project consists of:
- Replacement of approximately 4,000 linear feet of PVC gravity sewer line with 8-inch SDR-35 gravity sewer line;
  - Installation of approximately 4,400 linear feet of new 8-inch PVC gravity sewer line.
  - Installation of approximately 6,000 linear feet of 4-inch and 8-inch force-main in order to convey the Pin Oak Subdivision flows into the Marshall County Sewerage District's existing collection system.
  - The Pin Oak Subdivision WWTP will be decommissioned
  - Installation of a new 45 GPM lift station in the vicinity of the existing WWTP (the Pin Oaks lift station)
  - Installation of a new 85 GPM lift station (the Fremont Drive lift station)

Construction cost is estimated at \$2,980,000. Total project cost estimated at \$4,100,000.

3. Customer Density/Cost per Customer: Because most of the project cost and scope involves replacement of existing facilities, these values are less meaningful.
4. Project Feasibility: The project is technically feasible. The Pin Oaks WWTP is a small 20,000 GPD treatment plant that is experiencing operational and compliance problems. Elimination of this WWTP will reduce the number of treatment facilities the District owns, operates and maintains as well as eliminate an outfall to an unnamed tributary. The main line extension will serve and additional 19 customers who currently depend on individual septic systems for treatment. All collected flows will be transported to the City of Wheeling for treatment.
5. Project Alternatives: the technical review staff agrees with the chosen alternative. Three alternatives were considered for the WWTP work: 1) the selected alternative; 2) upgrading the existing WWTP; and 3) Do nothing. The scope of work replaces the problematic treatment facility with a lift station where flows are conveyed to the City of Wheeling for treatment. The new line extension proposal likely has no reasonable alternatives other than a "Do Nothing" option.

- 6. Consolidation: There are no consolidation opportunities presented by this project.
- 7. Inconsistencies: None noted.
- 8. Operation and Maintenance (O & M) Expenses: The PER includes a net present worth analysis which assumes an annual expense of \$3,108.44 which is likely less than the ongoing expense of the existing WWTP.
- 9. 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 equal to % of the construction cost of \$ (including contingency).

<i><b>Preliminary Project Ranking</b></i>		
O & M Capabilities		
Performance Measures:	1	<i>Pt.</i>
Asset Management:	1	<i>Pt.</i>
Environmental Management:	1	<i>Pt.</i>
Readiness to Proceed:	0	<i>Pt.</i>
Cost Effectiveness:	0	<i>Pt.</i>
Compliance with PSC Orders:	0	<i>Pt.</i>

MARSHALL COUNTY SEWERAGE DISTRICT  
 CASH FLOW ANALYSIS  
 YEAR ENDED: June 30, 2021  
 APPLICATION NO: 2022S-2176  
 July 5, 2022

PREFERRED FUNDING PACKAGE  
 SCENARIO 1

	Rule 42 Cash Flow Going Level Per Application Before Project	Rule 42 Cash Flow Proforma Per Application with Project	Staff Adjustments	Per Staff Analysis
	1	2	3	4
	\$	\$	\$	\$
<b>AVAILABLE CASH</b>				
Operating Revenues	653,444	813,824	(113,184) (1)	700,640
Other Operating Revenue	701,935	703,296	-	703,296
SB 234 Annual Working Cash Collections			113,184 (2)	113,184
Interest Income & Other Misc.	428	428	-	428
<b>Total Cash Available</b>	<b>1,355,807</b>	<b>1,517,548</b>	<b>-</b>	<b>1,517,548</b>
<b>OPERATING DEDUCTIONS</b>				
Operating Expenses	1,062,840	1,069,840	1,437 (3)	1,071,277
Taxes	5,668	5,668	-	5,668
<b>Total Cash Requirements Before Debt Service</b>	<b>1,068,508</b>	<b>1,075,508</b>	<b>1,437</b>	<b>1,076,945</b>
Cash Available for Debt Service (A)	287,299	442,040	(1,437)	440,603
<b>DEBT SERVICE REQUIREMENTS</b>				
Principal & Interest (B)	203,836	244,794	6,485 (4)	251,279
Other Debt			-	-
Reserve Account @ 10%	15,658	19,754	648 (5)	20,402
Renewal & Replacement Fund (2.5%)	16,502	20,546	14,552 (6)	35,098
<b>Total Debt Service Requirement</b>	<b>235,996</b>	<b>285,094</b>	<b>21,685</b>	<b>306,779</b>
SB 234 Cash Working Capital	116,353	113,184	-	113,184
<b>Remaining Cash</b>	<b>(65,050)</b>	<b>43,762</b>	<b>(23,122)</b>	<b>20,639</b>
Percent Coverage (A) / (B)	140.95%	180.58%		175.34%
Average rate for 3,400 gallons	\$ 42.50	\$ 51.20	\$ -	\$ 51.20
Average rate for 4,000 gallons	\$ 44.62	\$ 53.75	\$ -	\$ 53.75
<b>Schedule 1</b>				
Rate for 3,400 gallons	\$ 45.35 *	\$ 54.65 *		
Rate for 4,000 gallons	\$ 45.35	\$ 54.65		
<b>Schedule 2</b>				
Rate for 3,400 gallons	\$ 51.33	\$ 61.84		
Rate for 4,000 gallons	\$ 54.91	\$ 66.15		
<b>Schedule 4</b>				
Rate for 3,400 gallons	\$ 45.43 *	\$ 54.74 *		
Rate for 4,000 gallons	\$ 45.43	\$ 54.74		
<b>Schedule 5</b>				
Rate for 3,400 gallons	\$ 27.88	\$ 33.59		
Rate for 4,000 gallons	\$ 32.80	\$ 39.52		

Reflect Min. Bill based on 4,000 \*

MARSHALL COUNTY SEWERAGE DISTRICT  
 CASH FLOW ANALYSIS  
 YEAR ENDED: June 30, 2021  
 APPLICATION NO: 2022S-2176

Attachment A  
 PREFERRED FUNDING PACKAGE  
 SCENARIO 1

Staff Adjustments

<u>Adjustment Description</u>		\$	Increase <Decrease>
(1)	<b>Operating Revenues</b>		
	Per Staff Analysis	700,640	(113,184)
	Per Application with Project	813,824	
	Adjust revenues in accordance with PSC General Order 183.11.		
(2)	<b>SB 234 Annual Working Cash Collections</b>		
	Per Staff Analysis	113,184	113,184
	Per Application with Project	-	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.		
(3)	<b>Operating Expenses</b>		
	Per Staff Analysis	1,071,277	1,437
	Per Application with Project	1,069,840	
	Staff's calculation included a .25% Administrative Fee associated with CWSRF Loan of \$1,100,000 for 30 years.		
(4)	<b>Principal &amp; Interest</b>		
	Per Staff Analysis	251,279	6,485
	Per Application with Project	244,794	
	The difference in P&I is related to Staff's calculation of a CWSRF Loan of \$1,100,000 for 30 years at 1.75%.		
(5)	<b>Reserve Account @ 10%</b>		
	Per Staff Analysis	20,402	648
	Per Application with Project	19,754	
	Staff assumed a 10% reserve on the new debt.		
(6)	<b>Renewal &amp; Replacement Fund (2.5%)</b>		
	Per Staff Analysis	35,098	14,552
	Per Application with Project	20,546	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.		

MARSHALL COUNTY SEWERAGE DISTRICT  
 CASH FLOW ANALYSIS  
 YEAR ENDED: June 30, 2021  
 APPLICATION NO: 2022S-2176  
 July 5, 2022

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	653,444	813,824	18,316 (1)	832,140
Other Operating Revenue	701,935	703,296	-	703,296
SB 234 Annual Working Cash Collections			113,184 (2)	113,184
Interest Income & Other Misc.	428	428	-	428
<b>Total Cash Available</b>	<b>1,355,807</b>	<b>1,517,548</b>	<b>131,500</b>	<b>1,649,048</b>
<b>OPERATING DEDUCTIONS</b>				
Operating Expenses	1,062,840	1,069,840	-	1,069,840
Taxes	5,668	5,668	-	5,668
<b>Total Cash Requirements Before Debt Service</b>	<b>1,068,508</b>	<b>1,075,508</b>	<b>-</b>	<b>1,075,508</b>
Cash Available for Debt Service (A)	287,299	442,040	131,500	573,540
<b>DEBT SERVICE REQUIREMENTS</b>				
Principal & Interest (B)	203,836	244,794	142,823 (3)	387,617
Other Debt			-	-
Reserve Account @ 10%	15,658	19,754	14,282 (4)	34,036
Renewal & Replacement Fund (2.5%)	16,502	20,546	17,840 (5)	38,386
<b>Total Debt Service Requirement</b>	<b>235,996</b>	<b>285,094</b>	<b>174,945</b>	<b>460,039</b>
SB 234 Cash Working Capital	116,353	113,184	-	113,184
<b>Remaining Cash</b>	<b>(65,050)</b>	<b>43,762</b>	<b>(43,445)</b>	<b>317</b>
Percent Coverage (A) / (B)	140.95%	180.58%		147.97%
Average rate for 3,400 gallons	\$ 42.50	\$ 51.20	\$ 8.29	\$ 59.49
Average rate for 4,000 gallons	\$ 44.62	\$ 53.75	\$ 8.71	\$ 62.46
<b>Schedule 1</b>				
Rate for 3,400 gallons	\$ 45.35 *	\$ 54.65 *		
Rate for 4,000 gallons	\$ 45.35	\$ 54.65		
<b>Schedule 2</b>				
Rate for 3,400 gallons	\$ 51.33	\$ 61.84		
Rate for 4,000 gallons	\$ 54.91	\$ 66.15		
<b>Schedule 4</b>				
Rate for 3,400 gallons	\$ 45.43 *	\$ 54.74 *		
Rate for 4,000 gallons	\$ 45.43	\$ 54.74		
<b>Schedule 5</b>				
Rate for 3,400 gallons	\$ 27.88	\$ 33.59		
Rate for 4,000 gallons	\$ 32.80	\$ 39.52		

Reflect Min. Bill based on 4,000 \*

**MARSHALL COUNTY SEWERAGE DISTRICT**  
**CASH FLOW ANALYSIS**  
**YEAR ENDED: June 30, 2021**  
**APPLICATION NO: 2022S-2176**

**Attachment B**  
**LOAN PACKAGE**  
**SCENARIO 2**

**Staff Adjustments**

<u>Adjustment Description</u>		\$	Increase <Decrease>
(1) <b>Operating Revenues</b>	<b>Per Staff Analysis</b>	<b>832,140</b>	<b>18,316</b>
	<b>Per Application with Project</b>	<b>813,824</b>	
Adjust revenues in accordance with PSC General Order 183.11. Staff projected that an additional \$131,500 in revenues would be needed to achieve 115% and a positive cash balance.			
(2) <b>SB 234 Annual Working Cash Collections</b>	<b>Per Staff Analysis</b>	<b>113,184</b>	<b>113,184</b>
	<b>Per Application with Project</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>387,617</b>	<b>142,823</b>
	<b>Per Application with Project</b>	<b>244,794</b>	
The difference in P&I is related to Staff's calculation of a loan of \$3,100,000 for 40 years (paid back over 38 years) at 5%.			
(4) <b>Reserve Account @ 10%</b>	<b>Per Staff Analysis</b>	<b>34,036</b>	<b>14,282</b>
	<b>Per Application with Project</b>	<b>19,754</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>38,386</b>	<b>17,840</b>
	<b>Per Application with Project</b>	<b>20,546</b>	
Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			

MARSHALL COUNTY SEWERAGE DISTRICT  
 CASH FLOW ANALYSIS  
 YEAR ENDED: June 30, 2021  
 APPLICATION NO: 2022S-2176  
 July 5, 2022

ALTERNATE FUNDING PACKAGE  
 SCENARIO 3

	Rule 42 Cash Flow Going Level Per Application Before Project	Rule 42 Cash Flow Proforma Per Application with Project	Staff Adjustments	Per Staff Analysis
	1	2	3	4
	\$	\$	\$	\$
<b>AVAILABLE CASH</b>				
Operating Revenues	653,444	813,824	(106,184) (1)	707,640
Other Operating Revenue	701,935	703,296	-	703,296
SB 234 Annual Working Cash Collections			113,184 (2)	113,184
Interest Income & Other Misc.	428	428	-	428
<b>Total Cash Available</b>	<b>1,355,807</b>	<b>1,517,548</b>	<b>7,000</b>	<b>1,524,548</b>
<b>OPERATING DEDUCTIONS</b>				
Operating Expenses	1,062,840	1,069,840	1,452 (3)	1,071,292
Taxes	5,668	5,668	-	5,668
<b>Total Cash Requirements Before Debt Service</b>	<b>1,068,508</b>	<b>1,075,508</b>	<b>1,452</b>	<b>1,076,960</b>
Cash Available for Debt Service (A)	287,299	442,040	5,548	447,588
<b>DEBT SERVICE REQUIREMENTS</b>				
Principal & Interest (B)	203,836	244,794	31,281 (4)	276,075
Other Debt			-	-
Reserve Account @ 10%	15,658	19,754	3,128 (5)	22,882
Renewal & Replacement Fund (2.5%)	16,502	20,546	14,727 (6)	35,273
<b>Total Debt Service Requirement</b>	<b>235,996</b>	<b>285,094</b>	<b>49,136</b>	<b>334,230</b>
SB 234 Cash Working Capital	116,353	113,184	-	113,184
<b>Remaining Cash</b>	<b>(65,050)</b>	<b>43,762</b>	<b>(43,588)</b>	<b>173</b>
Percent Coverage (A) / (B)	140.95%	180.58%		162.13%
Average rate for 3,400 gallons	\$ 42.50	\$ 51.20	\$ 0.46	\$ 51.66
Average rate for 4,000 gallons	\$ 44.62	\$ 53.75	\$ 0.48	\$ 54.24
<b>Schedule 1</b>				
Rate for 3,400 gallons	\$ 45.35 *	\$ 54.65 *		
Rate for 4,000 gallons	\$ 45.35	\$ 54.65		
<b>Schedule 2</b>				
Rate for 3,400 gallons	\$ 51.33	\$ 61.84		
Rate for 4,000 gallons	\$ 54.91	\$ 66.15		
<b>Schedule 4</b>				
Rate for 3,400 gallons	\$ 45.43 *	\$ 54.74 *		
Rate for 4,000 gallons	\$ 45.43	\$ 54.74		
<b>Schedule 5</b>				
Rate for 3,400 gallons	\$ 27.88	\$ 33.59		
Rate for 4,000 gallons	\$ 32.80	\$ 39.52		

Reflects Min. Bill based on 4,000 \*

Staff Adjustments

<u>Adjustment Description</u>		\$	Increase <Decrease>
(1) <b>Operating Revenues</b>	<b>Per Staff Analysis</b>	707,640	(106,184)
	<b>Per Application with Project</b>	813,824	
Adjust revenues in accordance with PSC General Order 183.11. Staff projected that an additional \$7,000 in revenues would be needed to achieve 115% and a positive cash balance.			
(2) <b>SB 234 Annual Working Cash Collections</b>	<b>Per Staff Analysis</b>	113,184	113,184
	<b>Per Application with Project</b>	-	
Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3) <b>Operating Expenses</b>	<b>Per Staff Analysis</b>	1,071,292	1,452
	<b>Per Application with Project</b>	1,069,840	
Staff's calculation included a difference in an Administrative Fee associated with a loan.			
(4) <b>Principal &amp; Interest</b>	<b>Per Staff Analysis</b>	276,075	31,281
	<b>Per Application with Project</b>	244,794	
The difference in P&I is related to Staff's calculation of a loan of \$1,100,000 for 20 years at 2.75%.			
(5) <b>Reserve Account @ 10%</b>	<b>Per Staff Analysis</b>	22,882	3,128
	<b>Per Application with Project</b>	19,754	
Staff assumed a 10% reserve on the new debt.			
(6) <b>Renewal &amp; Replacement Fund (2.5%)</b>	<b>Per Staff Analysis</b>	35,273	14,727
	<b>Per Application with Project</b>	20,546	
Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			