



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
Funding Committee
Infrastructure and Jobs Development Council

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

Date: July 21, 2022

Subject: Hamlin Sanitary Board
Preliminary Application: 2022S-2170
Sewer System Rehabilitation and Extension

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 rehabilitate portions of the existing collection system to reduce infiltration and inflow (I/I) and install protection measures around the stabilization pond embankment, replace effluent valves, and replace the chlorination equipment. It will also extend sewer service to the Lincoln County Business Park. The collection system was constructed in 1967 and has had no improvements since that time. As a result, 47.9% of the system's flow is I/I. This application was last reviewed in July 2020 and the total project cost was \$2,775,000. The current total project cost is \$4,325,000 (an increase of \$1,550,000 from 2020) and the proposed funding sources are a \$2,220,000 Congressional Directed Spending grant, a \$750,000 U.S. ACOE grant, and a \$1,335,000 WDA Economic Enhancement Program grant.

A total engineering fee variance will be required.

Attachments: Technical Comments

Engineering Fees:

Estimated construction cost =	\$ 3,332,000
Consultant's design fee =	\$ 265,000
Design fee percentage =	8.0%
Design fee per ASCE curve =	8.5%
Consultant's total fee =	\$ 686,000
Total fee percentage =	20.6%
Total fee per ASCE curve =	19.0%

Preliminary Project Ratings:

1. Public Health Benefits	10
3. Compliance with Standards	5
5. O & M Capabilities	2
6. Readiness to Proceed	0
8. Cost Effectiveness	1
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: Hamlin PSD
Preliminary Application **Project No.: 2022S-2170**
Sewer line/WWTP Upgrade
Lincoln County

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 replace/rehabilitate/upgrade the existing sewage collection system WWTP for the Hamlin PSD and extend sewer service to the Lincoln County Business Park. Major work will consist of the removal & replacement of 2,060 LF of sewer line; 15 manholes; upgrade of three (3) existing lift stations; installation of 2,100 LF of 8" sewer line; installation of 2,500 LF of 1 ½ " force main; three (3) 48" manholes; and one (1) 20 GPM lift station. At the WWTP, install protection measures around the stabilization pond embankment; replace existing effluent valves, and replace the chlorination equipment.

The cost per customer is \$6,280. Total estimated project cost is \$4,325,000 (Congressionally Directed: \$2,220,000; USCOE: \$750,000; and WDA Economic Enhancement Grant: \$1,355,000).

NEED FOR PROJECT:

The Preliminary Engineering Report indicates the Hamlin PSD has experienced problems with excessive I&I due to aging infrastructure and sections of deteriorated sewer line & manholes. Equipment at the existing stabilization bond is at the end of its useful life, and the stabilization pond embankment is eroded. A portion of the Lincoln County Business Park is unserved by sanitary sewer service.

CONCERNS:

None.

PERMITS:

A permit **will be** required from the WV Bureau for Public Health prior to construction for the proposed Lincoln County Business Park sewer extension.



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Harold D. Ward, Cabinet Secretary
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MEMORANDUM

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

FROM: Dominique Madison E.I., DWWM

DATE: July 13, 2022

SUBJECT: Hamlin Sanitary Board
Preliminary Application: IJDC No. 2022S-2170
Hamlin Sewer Replacement and Upgrade Project

RECOMMENDATION

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

PROJECT DESCRIPTION

The Hamlin Sanitary Board owns and operates a wastewater collection system, and a 0.25 Million Gallon Per Day (MGD) wastewater treatment plant (WWTP). The Sanitary Board provides sewer service to approximately 678 customers in Lincoln County, WV.

The proposed project will provide an upgrade to the existing storm sewer and sanitary sewer collection system and extend sewer service to the Lincoln County Business Park. The existing sanitary sewer in the project area will be removed and replaced. The proposed replacement locations include the areas along WV Route 3, Walnut Street, Sycamore Avenue, and Virginia Road. The rehabilitation portion of this project also includes an upgrade to the three (3) Lift Stations. The existing sanitary system improvements consist of the replacement of approximately 2,080 LF of gravity sewer line, 10 new manholes, and all other necessary appurtenances.

The proposed total cost for this project is \$4,325,000 and the Sanitary Board intends to pursue a \$2,220,000 grant in Congressional Directed Spending, a \$750,000 grant through the United States Army Corps of Engineers, and a \$1,355,000 grant from the Water Development Authorities Economic Enhancement program. The proposed monthly rate for 3,400 gallons is

Promoting a healthy environment.

\$25.79 (0.89% MHI). The City also charges a flat rate fee of \$8.85 for residential properties for stormwater collection.

NEED FOR PROJECT

According to the 2021 Annual Report, approximately 47.88% of the system's transmitted flow is inflow and infiltration (I&I). The collection system was originally constructed in 1967 and has had no capacity improvements since that time. Smoke testing was conducted by The Thrasher Group, Inc. (Thrasher) to locate problematic areas in the existing sewer line. A total of 219 different issues were reported through the smoke testing, many of which were issues with manholes, lateral piping, main line piping, and connected downspouts.

DEFICIENCIES/COMMENTS

- The PER will need to be developed into a facility plan that meets CWSRF requirements if CWSRF is used.
- A Total Fee Variance will be required.
- The PER states, the plant currently has more than sufficient capacity to handle more flows and that this may open expansion to the business park. I believe this should be monitored.

Engineering Fees:

Estimated construction cost =	\$ 3,332,000.00
Consultant's design fee =	\$ 265,000.00
Consultant's total fee =	\$ 686,000.00
Design fee percentage =	8.0 %
Design fee per ASCE curve =	8.5 %
Total fee percentage =	20.6%
Total fee per ASCE curve =	19.0%

Preliminary Project Ratings:

Public Health Benefits: 10
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 57th St.
Charleston, West Virginia 25304

Re: Public Service Commission Staff Review Comments
Application No. 2022S-2170
Hamlin PSD (Sewer)
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,

A handwritten signature in blue ink that reads 'Jonathan M. Fowler'.

Jonathan M. Fowler, P.E.
Engineering Division

Enclosures
JMF:vb

**PUBLIC SERVICE COMMISSION STAFF
TECHNICAL REVIEW**

DATE: June 29, 2022

PROJECT SPONSOR: HAMLIN PUBLIC SERVICE DISTRICT - SEWER

PROJECT SUMMARY: The project proposes replacement/upgrades to the wastewater collection system, including aged, deteriorated lines and manholes; improvements to 3 lift stations, and rehabilitation and upgrading of the WWTP (lagoon).

PROPOSED FUNDING: Congressionally Directed Grant	\$ 2,220,000
USCOE Grant	750,000
WDA Economic Enhancement Grant	<u>1,355,000</u>
Total	\$ 4,325,000

CURRENT/PROPOSED

RATES:	\$25.79	3,400 gallons
	\$29.64	4,000 gallons

Application No. 2022S-2170

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

FINANCIAL: Alex Kovarik

1. Current rates (\$25.79 for 3,400 gallons) are below the rates attributable to 1.25% (\$37.29), 1.5% (\$44.75), 1.75% (\$52.21), and 2.0% (\$59.67) 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 \$96,961, \$159,858, \$222,755, and \$285,652 respectively.
2. Using Scenario 1, the preferred funding package consisting of a Congressionally Directed Grant of \$2,220,000, a USCOE Grant of \$750,000, and a WDA Economic Enhancement Grant of \$1,355,000, proposed rates (\$25.79 for 3,400

gallons) will provide a cash flow surplus of \$22,968.

3. Using the Scenario 2 alternate loan package of \$4,325,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), proposed rates (\$56.40 for 3,400 gallons) will provide a cash flow deficit of \$8,501 and debt service coverage of 119.49%. An additional 1.9% (for a total of \$57.47 for 3,400 gallons) increase in proposed rates will be required in order to provide a cash flow surplus of \$274 and debt service coverage of 123%.

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, 2021, and the applicant's Cash Flow Statements submitted with the application.
- C. Staff used the MHI for Lincoln County of \$35,800 from the 2015 U.S. Census versus the MHI of \$36,250 that was listed in the application.
- D. Staff notes that the project sponsor requested a Draft Rule 42 Exhibit waiver.
- E. This application was last reviewed in July 2020. At that time, the funding package consisted of a USDA Loan for \$1,885,000 at 1.87% for 40 years (paid back over 38 years), a USDA Grant of \$500,000 and an IJDC Economic Development Grant of \$390,000. Staff notes that the previous project and the current project both propose to serve 1 new customer.
- 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 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. 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) et seq.
2. **Scope:** The project proposes to improve the existing sanitary sewer collection system to reduce the amount of I&I in the system, improve the wastewater treatment system by replacing equipment in-kind and repairing erosion of the stabilization pond berms, and extend sanitary sewer service to the Lincoln County Business Park. The project is estimated to cost \$4,325,000.
3. **Need for Project:** This project will extend sewer service into the unserved portion of the Lincoln Industrial Park. The lack of service there has been an ongoing impediment to locating businesses and bringing the associated jobs there.
4. **Customer Density:** This project is mainly an upgrade and rehabilitation in nature and customer density will not be affected.
5. **Cost per Customer:** Based upon the estimated project budget of \$4,325,000 and having approximately 687 existing customers and one new extension, cost-per-customer is approximately \$6,286. However, it appears that the project is fully grant funded; therefore, current customers bear no capital project related expenses.
6. **Project Feasibility:** This project appears to be technically feasible and poses little technical risk.
7. **Project Alternatives:** Following alternatives were evaluated: **Collection System Improvements:** Alternative #A.1 – Remove and Replace In-Kind. Alternative #A.2 – Pipeline Jetting and Cleaning. Alternative #A.3 – Slip-Lining Existing Sewer Pipe. Alternative #A.4 – Do Nothing. **Wastewater Treatment Plant Improvements:** Alternative #B.1 – In-Kind Replacement, Alternative #B.2 – Ultraviolet Disinfection System, Alternative #B.3 – Do Nothing. **Lincoln County Business Park Sewer Extension:** Alternative #C.1 – Gravity Collection System, Alternative #C.2 – Pressurized Grinder System, Alternative #C.3 – Vacuum System, Alternative #C.4 – Do Nothing. Alternatives A.1, B.1, and C.1 are considered as Combined Alternative-1 were selected.

8. **Consolidation:** There are no consolidation issues with the selected alternatives.
9. **Inconsistencies:** None was noticed for this project.
10. **Project Permits:** WV DEP NPDES Construction Storm Water Permit, WV Division of Natural Resources, Office of Land and Streams, Stream Activity Permit, US Army Corps of Engineers, WV Division of Highways, Utility Encroachment Permit, Lincoln County Division of Homeland Security and Emergency, Management, Floodplain Development Permit, WV Public Service Commission, Certificate of Convenience and Necessity. Coordination with the following Agencies: WV Division of Natural Resources, US Fish and Wildlife.
11. **Operation and Maintenance (O&M) Expenses:** The project's O&M expenses are expected to remain unchanged to total annual O&M expenses of \$170,463.
12. **Engineering Agreement:** The applicant has provided documentation relative to compliance with West Virginia Code §5G-1-1, et seq. Based on the filing, the total design fees for engineering services are \$265,000 at the construction cost of \$3,332,000. This is approximately 7.95 % of the construction costs as shown on the application.

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

HAMLIN PUBLIC SERVICE DISTRICT - SEWER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2021
 APPLICATION NO: 2022S-2170
 June 29, 2022

**PREFERRED FUNDING PACKAGE
 SCENARIO 1**

	Rule 42 Going Level Per Application Before Project	Rule 42 Proforma Per Application with Project	Staff Adjustments	Per Staff Analysis
	1	2	3	4
	\$	\$	\$	\$
<u>AVAILABLE CASH</u>				
Operating Revenues	217,524	217,524	(21,308) (1)	196,216
Other Operating Revenue	8,131	8,131	-	8,131
SB 234 Annual Working Cash Collections			21,308 (2)	21,308
Interest Income & Other Misc.	108	108	-	108
Total Cash Available	225,763	225,763	-	225,763
<u>OPERATING DEDUCTIONS</u>				
Operating Expenses	170,463	170,463	-	170,463
Taxes	5,915	5,915	-	5,915
Total Cash Requirements Before Debt Service	176,378	176,378	-	176,378
Cash Available for Debt Service (A)	49,385	49,385	-	49,385
<u>DEBT SERVICE REQUIREMENTS</u>				
Principal & Interest (B)	15,129	-	-	-
Other Debt	-	-	-	-
Reserve Account @ 10%	-	-	-	-
Renewal & Replacement Fund (2.5%)	5,644	5,644	(535) (3)	5,109
Total Debt Service Requirement	20,773	5,644	(535)	5,109
SB 234 Cash Working Capital	17,901	21,308	-	21,308
Remaining Cash	10,711	22,433	535	22,968
Percent Coverage (A) / (B)	326.43%			
Average rate for 3,400 gallons	\$ 25.79	\$ 25.79	\$ -	\$ 25.79
Average rate for 4,000 gallons	\$ 29.64	\$ 29.64	\$ -	\$ 29.64

**HAMLIN PUBLIC SERVICE DISTRICT - SEWER
CASH FLOW ANALYSIS
YEAR ENDED: June 30, 2021
APPLICATION NO: 2022S-2170**

**Attachment A
PREFERRED FUNDING PACKAGE
SCENARIO 1**

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	196,216	(21,308)
		Per Application with Project	217,524	
	Adjust revenues in accordance with PSC General Order 183.11.			
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis	21,308	21,308
		Per Application with Project	-	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	5,109	(535)
		Per Application with Project	5,644	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			

HAMLIN PUBLIC SERVICE DISTRICT - SEWER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2021
 APPLICATION NO: 2022S-2170
 June 29, 2022

Attachment B
LOAN PACKAGE
SCENARIO 2

	Rule 42 Going Level Per Application Before Project	Rule 42 Proforma Per Application with Project	Staff Adjustments	Per Staff Analysis
	1	2	3	4
	\$	\$	\$	\$
AVAILABLE CASH				
Operating Revenues	217,524	474,524	(12,308) (1)	462,216
Other Operating Revenue	8,131	8,131	-	8,131
SB 234 Annual Working Cash Collections			21,308 (2)	21,308
Interest Income & Other Misc.	108	108	-	108
Total Cash Available	225,763	482,763	9,000	491,763
OPERATING DEDUCTIONS				
Operating Expenses	170,463	170,463	-	170,463
Taxes	5,915	5,915	-	5,915
Total Cash Requirements Before Debt Service	176,378	176,378	-	176,378
Cash Available for Debt Service (A)	49,385	306,385	9,000	315,385
DEBT SERVICE REQUIREMENTS				
Principal & Interest (B)	15,129	250,260	6,144 (3)	256,404
Other Debt	-	-	-	-
Reserve Account @ 10%	-	-	25,640 (4)	25,640
Renewal & Replacement Fund (2.5%)	5,644	12,069	(310) (5)	11,759
Total Debt Service Requirement	20,773	262,329	31,475	293,803
SB 234 Cash Working Capital	17,901	21,308	-	21,308
Remaining Cash	10,711	22,748	(22,475)	274
Percent Coverage (A) / (B)	326.43%	122.43%		123.00%
Average rate for 3,400 gallons	\$ 25.79	\$ 56.40	\$ 1.07	\$ 57.47
Average rate for 4,000 gallons	\$ 29.64	\$ 64.81	\$ 1.23	\$ 66.04

HAMLIN PUBLIC SERVICE DISTRICT - SEWER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2021
 APPLICATION NO: 2022S-2170

Attachment B
 LOAN PACKAGE
 SCENARIO 2

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis Per Application with Project	462,216 474,524	(12,308)
	Adjust revenues in accordance with PSC General Order 183.11. Staff also projected that an additional \$9,000 in revenues would be needed to achieve 115% debt service coverage and a positive cash flow surplus.			
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis Per Application with Project	21,308 -	21,308
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	Principal & Interest	Per Staff Analysis Per Application with Project	256,404 250,260	6,144
	The difference in P&I is related to Staff's calculation of a loan of \$4,325,000 for 40 years (paid back over 38 years) at 5%.			
(4)	Reserve Account @ 10%	Per Staff Analysis Per Application with Project	25,640 -	25,640
	Staff assumed a 10% reserve on the new debt.			
(5)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis Per Application with Project	11,759 12,069	(310)
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			