



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: October 21, 2024

Subject: Town of Franklin
IJDC Application - 2024S-2579
Wastewater Treatment Facility Improvements Project

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1. This committee has reviewed the preliminary application and engineering report submitted for the above referenced project in accordance with Chapter 31, Article 15A. It has been determined that the proposed project is:
 - a. Consistent with the intent of the Infrastructure and Jobs Development Act and is the most cost-effective, environmentally sound alternative for solving the 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 be tabled to the November 2024 funding committee meeting to address the WVDEP concerns.



Sherrri A. Young, DO, MBA, FAAFP
Cabinet Secretary

Jason R. Frame
OEHS Director

MEMORANDUM

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

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

DATE: October 11, 2024

SUBJECT: Town of Franklin
Preliminary Application **Project No.: 2024S-2579**
WWTP Upgrade
Pendleton 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 upgrade the existing Town of Franklin's WWTP. The existing lagoon WWTP will be replaced with a new Modular Package WWTP with the existing lagoons converted to a digester, modifications to the existing plant pump station, a new electrical control building, a new rotary press to be in a new building, and a new generator.

The cost per customer is **\$23,333**. Total estimated project cost is **\$10,407,000** (CWSRF Loan: **\$1,707,000 @0.25% for 38 years**; CWSRF Principal Forgiveness: **\$1,500,000**; IJDC District 2 Grant: **\$1,000,000**; Congressionally Directed: **\$2,500,000**; USCOE: **\$1,200,000**; CDBG-MIT: **\$1,000,000**; and ARC Grant: **\$1,500,000**).

NEED FOR PROJECT:

The Preliminary Engineering Report indicates the existing Town of Franklin's WWTP cannot meet the ammonia nitrogen NPDES effluent discharge limitations.

CONCERNS:

None.

PERMITS:

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





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MEMORANDUM

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

FROM: Justin Moffitt, P.E., DWWM

DATE: October 10, 2024

SUBJECT: Town of Franklin
IJDC Application - 2024S-2579
Wastewater Treatment Facility Improvements Project

RECOMMENDATION

The IJDC Application and Preliminary Engineering Report (PER) prepared by New River Engineers, Inc. for the above referenced project has been reviewed and is recommended to be tabled to the November 2024 funding committee meeting to address the WVDEP concerns.

PROJECT DESCRIPTION

The Town of Franklin (Town) owns and operates the wastewater treatment facility and collection system that serves approximately 466 customers within the corporate limits operating under the NPDES Permit No. WV0024970, effective until April 12, 2026. The Town of Franklin is in Pendleton County, WV along a section of US Route 220 and the South Branch of the Potomac River. The Town has a total area of approximately 0.59 square miles and is approximately 1730 feet above sea level. The Town's Wastewater Treatment Plant (WWTP) consists of covered concrete headworks, gravity grit channel, mechanical bar screen, influent pump station (365 GPM), four (4) cell lagoon with a total volume of 4,470,000 gallons with aeration in the first three (3) (0.2 MGD design/ 0.525 MGD peak flow), 7,400 gallon Chlorine contact chamber, ultrasonic flow meter with 90-degree V-notch weir, three (3) centrifugal blowers, cascade aerator and all requisite appurtenances.. The Town's collection system consists of approximately 9.7 miles of gravity sewer, 4,800 linear feet (LF) of force main, and 2 lift stations. Once treated, clean water discharges to the South Branch of the Potomac River at River Mile 114.5.

This project proposes to install a precast modular concrete package treatment plant on the existing plant site adjacent to lagoon cell 1, converting the existing lagoons to sludge digesters,

construct and install sludge processing equipment, make modifications to the existing pump station and subsequent piping revisions.

The proposed total cost for the project is \$10,307,000 and the Town intends to pursue a \$1,707,000 WVDEP Loan (0.25% Admin., 0.25% Int., 40 yr), a \$1,500,000 WVDEP Principal Forgiveness Loan, \$2,500,000 CDS Grant, \$1,500,000 ARC Grant, \$1,000,000 CDBG, \$1,000,000 IJDC Grant and \$1,200,000 USACE Grant. The current monthly rate for 3,400 gallons is \$42.94 (0.89% MHI). The proposed monthly rate for 3,400 gallons is \$96.43 (2.00% MHI).

NEED FOR PROJECT

The Town of Franklin's wastewater treatment plant is rated for 0.20 MGD and is consistently meeting all the effluent limits except for ammonia nitrogen. The Town was issued a notice of violation and subsequent order (No. 10143) on September 19, 2023, primarily due to exceedances of the effluent ammonia limit. During the twelve-month period ending August 2023 the wastewater treatment plant was only able to attain compliance with the ammonia once. Improvements to the wastewater treatment plant are necessary for the plant to consistently meet the ammonia limit.

Currently, the existing wastewater collection system for the town is in fair condition and provides an adequate level of service. Infiltration and inflow into the system is not of a sufficient magnitude to exceed the peak daily flow rating of the wastewater treatment facility. The existing processes at the wastewater treatment plant are in fair condition and age-related repairs/replacement are limited. Additionally, the lagoons and aeration system are in good condition, but it has become obvious that the lagoons, as they currently exist, cannot achieve the desired ammonia removal. The existing lagoon wastewater treatment plant was relined, and repairs made to the aeration system in 2016.

DEFICIENCIES/COMMENTS

- Using the Combined Application, the Design, and Total Engineering Fees appear to be above the ASCE Curves and will need a waiver and justification.
- PER does not contain a “summary” section.
- The selected alternative should be further discussed and compared to alternative 1(may need to be reconsidered and reevaluated).
- The DMR’s for the most recent year need to be analyzed. Values included are from 2023.
- Test frequency needs to be increased to establish a true average for each month. The effluent is currently only being sampled once a month for a monthly average. This is a project alternative justification.
- Under this funding scenario, this alternative is spending approximately \$23,000 per customer to lower ammonia levels slightly.

Preliminary Project Ratings:

Public Health Benefits: N/A
Compliance with Standards: N/A

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



October 18, 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-2579
Town of Franklin - 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:

- Forward the Application
- Return the Application
- Returned to the Applicant

Please advise if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Jonathan M. Fowler".

Jonathan M. Fowler, P.E.
Engineering Division

Enclosures
JMF:vb

**PUBLIC SERVICE COMMISSION STAFF
TECHNICAL REVIEW**

DATE: October 17, 2024

PROJECT SPONSOR: TOWN OF FRANKLIN - SEWER

PROJECT SUMMARY: Improvements to the wastewater treatment facility to bring the ammonia nitrogen levels into compliance.

PROPOSED FUNDING:

CWSRF Loan .25%. .25% AF, 40 yrs.	\$ 1,707,000
CWSRF Debt Forgiveness Loan	1,500,000
Congressionally Directed	2,500,000
IJDC District 2 Grant	1,000,000
USCOE	1,200,000
CDBG-MIT	1,000,000
ARC Grant	<u>1,500,000</u>
Total	\$10,407,000

CURRENT RATES: \$42.94 3,400 gallons
\$49.28 4,000 gallons

PROPOSED RATES: \$96.62 3,400 gallons
\$110.88 4,000 gallons

Application No. 2024S-2579

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

FINANCIAL: Bob Cadle

1. Current rates (\$42.94 for 3,400 gallons) are below the rates attributable to 1.25% (\$60.27), 1.5% (\$72.32), 1.75% (\$84.37), and 2% (\$96.43) 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 \$143,008, \$242,487, \$341,967, and \$441,446 respectively.

2. Using Scenario 1, the preferred funding package consisting of CWSRF Loan of \$1,707,000 at .25%, with a .25% administrative fee for 40 years (paid back over 38 years), a CWSRF Debt Forgiveness Loan of \$1,500,000, Congressionally Directed Spending Funds of \$2,500,000, an IJDC District 2 Grant of \$1,000,000, a USCOE Grant of \$1,200,000, a Community Development Block Grant-MIT of \$1,000,000 and an ARC Grant of \$1,500,000, proposed rates (\$96.62 for 3,400 gallons) will provide a cash flow surplus of \$37,356 and debt service coverage of 177.32%.
3. Using the Scenario 2 alternate loan package of \$10,407,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), proposed rates (\$200.12 for 3,400 gallons) will provide a cash flow deficit of \$32,133 and debt service coverage of 113.85%. An additional 3.1% (for a total of \$206.32 for 3,400 gallons) increase in the proposed rates will be required in order to provide a cash flow surplus of \$1,017 and debt service coverage of 118.76%.

4. NOTES TO COMMENTS

- A. Staff's detailed adjustments are listed on Attachment A for Scenario 1 (Preferred Funding Package) and Attachment B for Scenario 2 (Loan Package).
- B. Staff prepared the attached Cash Flow Analysis utilizing information from the Annual Report for the Fiscal Year Ended June 30, 2023, and the applicant's Rule 42 Exhibit submitted with the application.
- C. Staff notes the Applicant's cash flow analyses include going level rates of \$64.42 (3,400 gallons), however, as of this date no ordinance adopting these rates has been submitted to the Commission for Legal Division's review. Staff included these rates in its analyses.
- D. 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.

- E. Senate Bill 234 (2015) required, pursuant to WV Code 24-2-4b (b), that municipally operated utilities shall consider a reasonable plant-in-service depreciation expense for rates and charges. The project sponsor should take this into consideration when preparing its Rule 42. Municipals that do not provide for a reasonable depreciation expense risk delays in Certificate of Convenience and Necessity filings if rates are determined to not be sufficient.

- F. The Town should carefully evaluate its revenue requirements before passing a rate ordinance in order to ensure that rates are sufficient to provide a reasonable surplus and meet coverage requirements. Calculations to support the revenue projections should also be provided.

ENGINEERING: Jim Spurlock

- 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: The Town of Franklin proposes to construct upgrades to its wastewater treatment facility in order to address violations for the level of ammonia nitrogen in the effluent.

Customer Density: N/A (No new customers, internal improvements.)

Cost per Customer: \$22,334 (taken from the total project cost estimate of \$10,407,000 spread over 466 new customers). The proposed funding is 84% from grants.

- 3. Project Feasibility: The project is technically feasible. The cost per customer is somewhat high but the proposed funding includes significant grants. The project will address a notice of violation and subsequent order from DEP regarding ongoing high levels of ammonia nitrogen in the effluent. The Town is in the Chesapeake water shed.

4. Project Alternatives: The chosen alternative of installing a package modular treatment plant at the existing site was determined to be more adaptable to potential future discharge limitations than the least expensive alternative of modifying the existing lagoon system. The chosen alternative was also less costly than, while equally effective to, the third alternative of installing a sequencing batch reactor.
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 are projected to increase by \$102,559 annually as a result of the project. Supporting calculations were provided.
8. Engineering Agreement: The application includes information which appears to indicate compliance with West Virginia Code §§5G-1-1, et seq. Total technical services (engineering) costs for the project are \$1,125,000 which is equal to 13.33% of the construction cost of \$8,442,500 (including contingency).

TOWN OF FRANKLIN - SEWER
CASH FLOW ANALYSIS
YEAR ENDED: June 30, 2023
APPLICATION NO: 2024S-2579
October 18, 2024

**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	354,334	531,503	(39,572) (1)	491,931
Other Operating Revenue	2,962	2,962	-	2,962
SB 234 Annual Working Cash Collections			39,572 (2)	39,572
Interest Income & Other Misc.	4,098	4,098	-	4,098
Total Cash Available	361,394	538,563	-	538,563
<u>OPERATING DEDUCTIONS</u>				
Operating Expenses	211,846	316,579	52 (3)	316,631
Taxes	6,329	6,329	-	6,329
Total Cash Requirements Before Debt Service	218,175	322,908	52	322,960
Cash Available for Debt Servi (A)	143,219	215,655	(52)	215,603
<u>DEBT SERVICE REQUIREMENTS</u>				
Principal & Interest (B)	74,444	121,537	52 (4)	121,589
Other Debt	-	-	-	-
Reserve Account @ 10%	-	4,709	5 (5)	4,714
Renewal & Replacement Fund (2.5%)	9,035	13,464	(1,092) (6)	12,372
Total Debt Service Requirement	83,479	139,710	(1,035)	138,675
SB 234 Cash Working Capital	26,481	39,572	-	39,572
Remaining Cash	33,259	36,373	983	37,356
Percent Coverage (A) / (B)	192.38%	177.44%		177.32%
Average rate for 3,400 gallons	\$ 64.42	\$ 96.62	\$ -	\$ 96.62
Average rate for 4,000 gallons	\$ 73.92	\$ 110.88	\$ -	\$ 110.88

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	491,931	(39,572)
		Per Application with Project	531,503	
	Adjust revenues in accordance with PSC General Order 183.11.			
(2)	SB 234 Annual Working Cash Collections	Per Staff Analysis	39,572	39,572
		Per Application with Project	-	
	Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.			
(3)	Operating Expenses	Per Staff Analysis	316,631	52
		Per Application with Project	316,579	
	Staff's calculation included a difference in the administrative fee associated with the CWSRF Loan.			
(4)	Principal & Interest	Per Staff Analysis	121,589	52
		Per Application with Project	121,537	
	The difference in P&I is related to Staff's calculation of the CWSRF loan of \$1,707,000 for 40 years (paid back over 38 years) at .25%,			
(5)	Reserve Account @ 10%	Per Staff Analysis	4,714	5
		Per Application with Project	4,709	
	Staff assumed a 10% reserve on the new debt.			
(6)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	12,372	(1,092)
		Per Application with Project	13,464	
	Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.			

TOWN OF FRANKLIN - SEWER
CASH FLOW ANALYSIS
YEAR ENDED: June 30, 2023
APPLICATION NO: 2024S-2579
October 18, 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	354,334	1,100,829	(5,570) (1)	1,095,259
Other Operating Revenue	2,962	2,962	-	2,962
SB 234 Annual Working Cash Collections			39,572 (2)	39,572
Interest Income & Other Misc.	4,098	4,098	-	4,098
Total Cash Available	361,394	1,107,889	34,002	1,141,891
<u>OPERATING DEDUCTIONS</u>				
Operating Expenses	211,846	316,579	(2,174) (3)	314,405
Taxes	6,329	6,329	-	6,329
Total Cash Requirements Before Debt Service	218,175	322,908	(2,174)	320,734
Cash Available for Debt Servi (A)	143,219	784,981	36,176	821,157
<u>DEBT SERVICE REQUIREMENTS</u>				
Principal & Interest (B)	74,444	676,631	14,784 (4)	691,415
Other Debt	-	-	-	-
Reserve Account @ 10%	-	4,709	56,988 (5)	61,697
Renewal & Replacement Fund (2.5%)	9,035	27,697	(241) (6)	27,456
Total Debt Service Requirement	83,479	709,037	71,531	780,568
SB 234 Cash Working Capital	26,481	39,572	-	39,572
Remaining Cash	33,259	36,372	(35,355)	1,017
Percent Coverage (A) / (B)	192.38%	116.01%		118.76%
Average rate for 3,400 gallons	\$ 64.42	\$ 200.12	\$ 6.20	\$ 206.32
Average rate for 4,000 gallons	\$ 73.92	\$ 229.63	\$ 7.12	\$ 236.74

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Operating Revenues	Per Staff Analysis	1,095,259	(5,570)
		Per Application with Project	1,100,829	
Adjust revenues in accordance with PSC General Order 183.11. Staff also projected that an additional \$34,000 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	39,572	39,572
		Per Application with Project	-	
Account for SB 234 (2015) funding pursuant to PSC General Order 183.11.				
(3)	Operating Expenses	Per Staff Analysis	314,405	(2,174)
		Per Application with Project	316,579	
To remove the administrative fee associated from O&M expenses.				
(4)	Principal & Interest	Per Staff Analysis	691,415	14,784
		Per Application with Project	676,631	
The difference in P&I is related to Staff's calculation of a loan of \$10,407,000 for 40 years (paid over 38 years) at 5%.				
(5)	Reserve Account @ 10%	Per Staff Analysis	61,697	56,988
		Per Application with Project	4,709	
Staff assumed a 10% reserve on the new debt.				
(6)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	27,456	(241)
		Per Application with Project	27,697	
Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.				