



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
Meredith J. Vance, Director, Environmental Engineering Division, BPH

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

Date: December 13, 2024

Subject: City of Thomas
Preliminary Application: IJDC No. 2024W-2612
Water Treatment Plant Improvements Project

-
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 water 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:

This project proposes to install an iron removal system ahead of the existing water treatment plant components. The project will address the City's high iron levels in its raw water source. This will allow the City to be compliant with current WV Health Department Standards.

The BPH has listed several concerns in their memo mostly relating to lack of monitoring, reporting, and the utility generally failing to comply with public notification requirements. The City needs to take note of the listed concerns and implement efforts to come into compliance.

The proposed total cost for this project is \$1,530,000 and the City intends to pursue an IJDC District 1 Grant for \$500,000 and an WDA Economic Enhancement Grant for \$1,030,000.

The City of Thomas and the Town of Davis have both presented projects for WTP improvements. Future consideration should be given to consolidating or interconnecting.

Using the Combined Application, the Total Engineering Fee and the Design Fee appear to be within the ASCE curve.

Preliminary Project Ratings:

Public Health Benefits: 10
Compliance with Standards: 10



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MEMORANDUM

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

FROM: Robert Moore, DWWM

DATE: December 19, 2024

SUBJECT: City of Thomas
Preliminary Application: IJDC No. 2024W-2612
Water Treatment Plant Improvements Project

RECOMMENDATION

The IJDC Application and Preliminary Engineering Report prepared by Civil & Environmental Consultants, Inc. for the above referenced project has been reviewed and is technically feasible.

PROJECT DESCRIPTION

The City of Thomas (City) owns and operates a public water distribution system and Water Treatment Plant (WTP) operating under Public Water System Identification number (PWSID#) WV3304709. This system serves approximately 389 residential and commercial customers including the Tucker County High School. The City of Thomas is located in Tucker County along Co. Route 48 and on the North Fork of the Blackwater River in West Virginia.

This project proposes to install a 200 GPM Iron Removal System ahead of the existing water treatment plant components. The system will be located inside a steel container on a concrete pad. A fiberglass reinforced plastic (FRP) building will be constructed for pumps and Potassium Permanganate. Necessary pipes and appurtenances will be installed for moving raw water and backwash water to the proposed system.

The proposed total cost for this project is \$1,530,000 and the City intends to pursue an IJDC District 1 Grant for \$500,000 and an WDA Economic Enhancement Grant for \$1,030,000. The monthly rate for 3,400 gallons will be \$64.63 after going-level adjustments (1.51% MHI).

NEED FOR PROJECT

In June 2024, the City experienced very high iron levels in its raw water source due to high temperature and drought conditions. In August 2024, the City was able to reduce the high iron levels by cleaning the raw water intake at the impoundment. However, the iron levels still remain elevated, and this project is needed to improve water quality for the customers. The iron removal system is needed to reduce iron levels so that the existing WTP can provide treated water compliant with current WV Health Department Standards.

DEFICIENCIES/COMMENTS

- Using the Combined Application, the Total Engineering Fee and the Design Fee appear to be within the ASCE curve.
- The project requests WDA Economic Enhancement Grant Funds which are currently unavailable.
- The City of Thomas and the Town of Davis have both presented projects for WTP improvements. Future consideration should be given to consolidating or interconnecting.

Preliminary Project Ratings:

Public Health Benefits: 5
Compliance with Standards: 10

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 12, 2024

Meredith J. Vance
Office of Environmental Health Services
350 Capitol Street, Room 313
Charleston, West Virginia 25301-3713

Re: Public Service Commission Staff Review Comments
Application No. 2024W-2612
City of Thomas – Water System Improvements
Infrastructure Preliminary Application

Dear Ms. Vance:

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:

- forwarded to the Funding Committee
- forwarded to the Consolidation Committee
- 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: December 11, 2024

PROJECT SPONSOR: CITY OF THOMAS (WATER)

PROJECT SUMMARY: This project will install a pre-treatment system at the Thomas Water Treatment Plant to treat the high level of iron from its raw water source.

PROPOSED FUNDING: WDA Economic Enhancement Grant	\$1,030,000
IJDC District 1 Grant	<u>\$ 500,000</u>
Total	\$1,530,000

CURRENT RATES:	\$54.40	3,400 gallons
	\$63.54	4,000 gallons

PROPOSED RATES:	\$64.63	3,400 gallons
	\$75.50	4,000 gallons

Application No. 2024W-2612

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

FINANCIAL: Stephen Edens

1. Current rates (\$54.40 for 3,400 gallons) are above the rate attributable to 1.25% (\$53.57) of the Median Household Income (MHI), but below the rates attributable to 1.5% (\$64.29), 1.75% (\$75.00) and 2.0% (\$85.72) of the MHI. Increasing current rates to 1.5%, 1.75% and 2.0% of the MHI would provide additional revenues of \$75,963, \$158,289, and \$240,615 respectively.
2. Using Scenario 1, the preferred funding package consisting of a WDA Economic Enhancement Grant of \$1,030,000, and an IJDC District 1 Grant of \$500,000, proposed rates (\$64.63 for 3,400 gallons) will provide a cash flow surplus of \$6,568 and debt service coverage of 188.46%.

3. Using the Scenario 2 alternate loan package of \$1,530,000 (in uncommitted funds) at 5% for 40 years (paid back over 38 years), proposed rates (\$80.27 for 3,400 gallons) will provide a cash flow surplus of \$5,470 and debt service coverage of 144.23%.

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, 2023, 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 Sponsor passed an ordinance to increase rates in two Steps. Step 1 (\$54.40 for 3,400 gallons) rates were effective for service rendered on and after September 27, 2024. Step 2 (\$64.63 for 3,400 gallons) rates are effective for service rendered 90 days prior to the date that initial installment is due on the bonds issued for the Phase I Water Project or substantial completion of the Phase I Water Project, whichever occurs first. It should be noted that the Going Level and Proforma cash flow analysis provided in this filing reflects Step 2 rates. Staff reflected this 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 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.

- G. 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.
- H. The City of Thomas 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: Jonathan M. Fowler, P.E.

1. This project may not require a Certificate of Convenience and Necessity from the PSC. The project sponsor should consult Commission Staff pursuant to General Order 246 for such determination. If a Certificate is required, the utility 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).
2. Scope: The Town of Thomas proposes improvements to its water treatment plant in order to address excessive amounts of iron in their raw water. The project consists of the installation of manganese green-sand pressure filters ahead of the existing treatment train along with associated piping and support facilities. The new pressure filters are to be installed inside of a steel shipping container as a self-contained and re-locatable system so that they may be reused in the future; this is an important consideration owing to the advanced age of the existing water treatment plant.

Customer Density: N/A (Internal Improvements)

Cost per Customer: \$3,470, based on a cost of \$1,530,000 and 389 existing customers; this is acceptable and we note that the proposed funding is 100% grants.

3. Project Feasibility: The project is technically feasible. The cost per customer is reasonable. The project will provide needed treatment plant improvements.
4. Project Alternatives: The PER reviewed logical alternatives. Staff takes no issue with the proposed scope of work.
5. Consolidation: No consolidation opportunities are presented by the present, small project. However, it would be advantageous for the Thomas and Davis water systems to pursue consolidation before any significant water system improvements projects are developed by either utility.
6. Inconsistencies/Cautions: No fatal issues were noted. However, the City is advised to carefully proceed when using green sand filtration on raw surface waters as this not a typical application of such technology. Pilot testing may be necessary to verify design parameters.
7. Operation and Maintenance (O & M) Expenses: O & M expenses are projected to increase significantly (\$12,800/year) as a result of the project; this must be incorporated into any rate ordinances enacted by the City of Thomas.
8. 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 are \$230,000 which is equal to 18.9% of the construction cost of \$1,220,000 (including contingency).

CITY OF THOMAS - WATER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2023
 APPLICATION NO: 2024W-2612
 December 12, 2024

**PREFERRED 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	385,964	381,945	-	381,945
Other Operating Revenue	6,095	6,095	-	6,095
SB 234 Annual Working Cash Collections	32,247	36,266	-	36,266
Interest Income & Other Misc.	27	27	-	27
Total Cash Available	424,333	424,333	-	424,333
OPERATING DEDUCTIONS				
Operating Expenses	257,978	290,126	-	290,126
Taxes	7,460	8,020	-	8,020
Total Cash Requirements Before Debt Service	265,438	298,146	-	298,146
Cash Available for Debt Service (A)	158,895	126,187	-	126,187
DEBT SERVICE REQUIREMENTS				
Principal & Interest (B)	66,956	66,956	-	66,956
Other Debt			-	-
Reserve Account @ 10%	6,696	6,696	-	6,696
Renewal & Replacement Fund (2.5%)	10,608	10,608	(907) (1)	9,701
Total Debt Service Requirement	84,260	84,260	(907)	83,353
SB 234 Cash Working Capital	32,247	36,266	-	36,266
Remaining Cash	42,388	5,661	907	6,568
Percent Coverage (A) / (B)	237.31%	188.46%		188.46%
Average rate for 3,400 gallons	\$ 64.63	\$ 64.63	\$ -	\$ 64.63
Average rate for 4,000 gallons	\$ 75.49	\$ 75.49	\$ -	\$ 75.49

Staff Adjustments

<u>Adjustment Description</u>			Increase <Decrease>
		\$	
(1)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	9,701
		Per Application with Project	(907)
			10,608

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

CITY OF THOMAS - WATER
 CASH FLOW ANALYSIS
 YEAR ENDED: June 30, 2023
 APPLICATION NO: 2024W-2612
 December 12, 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
	\$	\$	\$	\$
AVAILABLE CASH				
Operating Revenues	385,964	483,152	-	483,152
Other Operating Revenue	6,095	6,095	-	6,095
SB 234 Annual Working Cash Collections	32,247	36,266	-	36,266
Interest Income & Other Misc.	27	27	-	27
Total Cash Available	424,333	525,540	-	525,540
OPERATING DEDUCTIONS				
Operating Expenses	257,978	290,126	-	290,126
Taxes	7,460	8,020	-	8,020
Total Cash Requirements Before Debt Service	265,438	298,146	-	298,146
Cash Available for Debt Service (A)	158,895	227,394	-	227,394
DEBT SERVICE REQUIREMENTS				
Principal & Interest (B)	66,956	156,973	688 (1)	157,661
Other Debt			-	-
Reserve Account @ 10%	6,696	15,698	68 (2)	15,766
Renewal & Replacement Fund (2.5%)	10,608	13,138	(907) (3)	12,231
Total Debt Service Requirement	84,260	185,809	(151)	185,659
SB 234 Cash Working Capital	32,247	36,266	-	36,266
Remaining Cash	42,388	5,319	151	5,470
Percent Coverage (A) / (B)	237.31%	144.86%		144.23%
Average rate for 3,400 gallons	\$ 64.63	\$ 80.27	\$ -	\$ 80.27
Average rate for 4,000 gallons	\$ 75.49	\$ 93.76	\$ -	\$ 93.76

Staff Adjustments

<u>Adjustment Description</u>			\$	Increase <Decrease>
(1)	Principal & Interest	Per Staff Analysis	157,661	688
		Per Application with Project	156,973	
The difference in P&I is related to Staff's calculation of a loan of \$1,530,000 for 40 years (paid back over 38 years) at 5%.				
(2)	Reserve Account @ 10%	Per Staff Analysis	15,766	68
		Per Application with Project	15,698	
Staff assumed a 10% reserve on the new debt.				
(3)	Renewal & Replacement Fund (2.5%)	Per Staff Analysis	12,231	(907)
		Per Application with Project	13,138	
Staff used 2.5% of the projection of "Operating & Other Revenues" as the basis of the renewal & replacement fund.				



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MEMORANDUM

MEMO TO: Meredith J. Vance
Office of Environmental Health Services
Bureau for Public Health

FROM: Brian D. Bailey *BB*
Technical Analyst
General Permits & Support Team

DATE: November 21, 2024

SUBJECT: Infrastructure Preliminary Application for the City of Thomas: Existing Water Treatment Plant Improvement in Tucker County, WV. (2024W-2612)

We have reviewed the above referenced project application information. The City of Thomas, discharges its backwash to its site, which is covered under WV/NPDES Site Registration No. WVG640059, expired on January 31, 2024.

If the City of Thomas is considering repairing and painting an existing water treatment plant or storage tanks, then the scope of this project requires precautions to prevent contamination of the waters of the state. Prior to beginning any removal of old paint, the City of Thomas should contact Mr. Brad Wright or a member of his staff at (304)-926-0499, extension 49746 for guidance in determining whether the paint to be removed is considered a hazardous waste. If so, proper containment and disposal procedures must be followed for the paint and any material associated with the sandblasting. If it is determined that the paint is not hazardous, the City of Thomas should contact John Lockhart or a member of his staff at (304)-926-0499, extension 43889 for proper disposal options.

Construction activities with a disturbed area of one (1) acre or greater are now required to register for the NPDES Storm Water Construction General Permit No. WV0115924 that became

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effective on April 6, 2024. Projects registered under the previous General Permit No. WV0115100 were automatically provided coverage under WV/NPDES General Permit No. WV0115924. For more information, they may contact Larry Board at (304)-926-0499, extension 43883.

In light of the above, we have no objection to this project as long as the appropriate provisions are taken to assure compliance with Chapter 22, Article 11, of the Code of West Virginia and any associated regulations. The responsible party may contact Mylinda Maddox (304) 926-0499 ext. 43825, should additional information be required.

BDB:mam

cc: Katheryn Emery