CHARLES TOWN UTILITY BOARD
AGENDA

WEDNESDAY, JANUARY 28, 2026

Regular Meeting | **661 South George Street, Charles Town, WV 25414** | **4:00 PM**

CALL TO ORDER

1. **APPROVAL OF MINUTES**
   a. Approval of January 14, 2026 Regular Meeting Minutes
   01.14.26 Meeting Minutes.pdf

2. **PUBLIC COMMENT**
   This portion of the agenda is designed for members of the general public to share thoughts on items of interest in the community. By law, Board members may ask clarifying questions or discuss procedural matters but are not permitted to discuss the policy merits of any issue unless it is scheduled for discussion.

   The public is invited to attend this meeting in person or via webcast (www.ctubwv.com- Board Meeting - Meeting Agendas and Minutes 2026) or by accessing the following zoom link:

   https://us06web.zoom.us/j/88175688019?pwd=O1hdrKNMBVbJVaDEiYXbu4UtU6Ljjp.1

   Meeting ID: 881 7568 8019
   Passcode: 542980
   (301)715-8592

3. **UNFINISHED BUSINESS**
   a. Update on WV PSC Case 25-1000-LRR-WS-C - Possible Executive Session under the provision of W. VA Code 6-9a-4(b)(12) - To discuss any matter which, by express provision of federal law or state statute or rule of court is rendered confidential, or which is not considered a public record within the meaning of the freedom of information act as set forth in article one, chapter twenty-nine-b of the code.
   b. WV-002 Charles Town Road Tank – Possible Executive Session under the provision of W. VA Code 6-9a-4(b)(7) - To plan or consider an official investigation or matter relating to crime prevention or law enforcement.
   c. Draft Maintenance Agreement for King's Crossing Subdivision
   Draft Maintenance Agreement Kings Crossing.pdf
   d. GDF Wastewater Preliminary Engineering Report
   Draft WW System PER Jan 2026.pdf

e. Jefferson County Parks and Recreation - Request for Sewer Service for James Hite Park
Draft Hite Road Park and North Jefferson Sewer Options.pdf

4. **NEW BUSINESS**
   a. GDF - Collection System Project - Change Order #3
   C.O. No. 3 - Augustine Ave Boring.pdf
   b. South George Street Property Information for Consideration for Future CTUB Expansion
   S George St Property Info.pdf
   c. Cooley Public Strategies Update and 1st Quarter Approach
   d. Draft Burns Farm Extension Agreement Renewal - Possible Executive Session Under: WV 1 State Code Section §6-9A-4(b)(9) - To consider matters involving or affecting the purchase, sale or lease of property, advance construction planning, the investment of public funds or other matters involving commercial competition, which if made public, might adversely affect the financial or other interest of the state or any political subdivision and involving contract matters.
   e. Summit Point Motorsports Park Funding Update
   f. Tuscawilla PEW Pump Quotes
   Pump Quotes rev.pdf

5. **MANAGER REPORTS**
   a. Utility Manager Report
   FY 2025 Compiled Financial Statements.pdf
   01.21.26 Corrosion Control Conversion Notice Letter.pdf
   b. Chairman Report

6. **APPROVAL OF BILLS**
   a. January 28, 2026
   Board Report 01.28.26.pdf

7. **ADJOURNMENT**

8. **INFORMATION ONLY**
   a. Next Meeting - February 11, 2026 at 4:00 P.M.

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting **661 South George Street**
Charles Town, WV 25414

Approval of January 14, 2026 Regular Meeting Minutes

Attachments:

01.14.26 Meeting Minutes.pdf

Charles Town Utility Board
Regular Board Meeting
January 14, 2026

The Charles Town Utility Board held a regular meeting on January 14, 2026 at 4:00 P.M. Members of the Board present were Brent Manuel, Chairman; John Maxey, Vice Chairman; Duke Pierson, Treasurer; Heidi Parker, Board Member and Patrick Kratovil, Board Member. Also present were Kristen Stolipher, Utility Manager; April Shultz, Assistant Utility Manager; Ashley Stottlemyer, Secretary; and Cindy Wilson, Legal Counsel (Zoom).

County Commission Liaison, Commissioner Mike Mood was absent from the meeting.

CALL TO ORDER
The Chairman called the meeting to order at 4:00 P.M.

The Chairman swore in Mr. Maxey for another three-year term as a CTUB board member.

Action: **No action taken by the Board.**

APPROVAL OF MINUTES
Approval of December 10, 2025 Special Meeting Minutes
Approval of December 18, 2025 Special Meeting Minutes
The Chairman called for changes or corrections to the December 10, 2025 and December 18, 2025 special meeting minutes. Mrs. Parker had a question on a motion in the December 10th minutes.

Action: **Motion made by Mr. Maxey, second by Mr. Pierson, the Board unanimously approved the December 10, 2025 and December 18, 2025 special meeting minutes as presented.**

PUBLIC COMMENT
Public comment was received by Jacquelyn Milliron.

ELECTION OF OFFICERS

Action: **Motion made by Mrs. Parker, second by Mr. Kratovil, the Board unanimously approved the nomination of Mr. Maxey as Vice Chairman. Mr. Maxey accepted the nomination.**

Action: **Motion made by Mr. Kratovil, second by Mr. Maxey, the Board unanimously approved the nomination of Mr. Pierson as Treasurer. Mr. Pierson accepted the nomination.**

Action: **Motion made by the Chairman, second by Mrs. Parker, the Board unanimously approved the nomination of Ms. Stottlemyer as Secretary. Ms. Stottlemyer accepted the nomination.**

UNFINISHED BUSINESS
Update on WV PSC Case 25-1000-LRR-WS-C - Possible Executive Session under the provision of W. VA Code 6-9a-4(b)(12) - To discuss any matter which, by express provision of federal law or state statute or rule of court is rendered confidential, or which is not considered a public record within

the meaning of the freedom of information act as set forth in article one, chapter twenty-nine-b of the code.

This item was moved to the end of the meeting.

Action: **No action required by the Board.**

NEW BUSINESS

Collection System Project – Resolution No. 23 – CWSRF No. 7, EEFG No. 5, Pay App No. 10

Mrs. Stolipher included the pay application for Resolution No. 23 in the amount of $485,998.56 for work completed.

Action: **Motion made by Mrs. Parker, second by Mr. Pierson, the Board unanimously approved Resolution No. 23 – CWSRF No. 7, EEFG Payment No. 5, Pay App No. 10.**

Collection System Project – Resolution No. 24 – CIF Payment No. 17

Mrs. Stolipher included the pay application for Resolution No. 24 in the amount of $54,765.78 for work completed.

Action: **Motion made by Mrs. Parker, second by Mr. Kratovil, the Board unanimously approved Resolution No. 24 – CIF Payment No. 17.**

Draft Maintenance Agreement Kings Crossing Subdivision

Mrs. Stolipher presented a draft Maintenance Agreement for Kings Crossing subdivision similar to the agreement the Board approved for the RiverPointe subdivision. Mrs. Stolipher mentioned the developer is currently working on a punch list provided by CTUB for the asset acceptance of Phase I which does include a pump station. In the meantime, the developer has requested an Operation and Maintenance agreement for the pump station and collection system prior that that asset acceptance.

Mrs. Stolipher mentioned the developer has outstanding inspection fees due to CTUB for Kings Crossing and Huntfield and recommended those fees be paid prior to entering into this agreement. Being the Huntfield AMEA is over twenty years old, the developer believes the language for paying inspection fees is unclear and has issues with paying those fees. Mrs. Stolipher raised this issue with the attorney and Mrs. Wilson agreed the developer is responsible for the fees. The Board provided discussions. Mrs. Stolipher also mentioned WVDEP is involved due to the health and safety risks with the Kings Crossing system being properly maintained.

Action: **Motion made by Mr. Pierson, second by Mr. Maxey, the Board unanimously tabled the agreement until further discussions with the attorney on the outstanding inspection fees.**

Jefferson County Parks and Recreation – Request for Sewer Service for Hite Road Park

Mrs. Stolipher provided a follow-up letter from Jefferson County Parks and Recreation as a formal request for the potential extension of public sewer service to the James Hite Park located in Kearneysville. The letter requests the associated costs and planning guidance for the potential connection. The Board provided discussions and directed Mrs. Stolipher to proceed by drafting a high-level cost evaluation on an extension to the facility and bring back to the Board for review.

Mr. Maxey requested Mrs. Stolipher reach out to the Board of Education to see if they are interested in connecting the North Jefferson Elementary School by taking advantage of possible cost sharing with this extension in that area.

Action: **No action required by the Board.**

GDF Draft Wastewater Treatment and Collections Preliminary Engineering Report and Review of Plant Design Parameters, Schedule and Anticipated Costs

Chris Eckenrode from GDF gave a high-level presentation on the draft Preliminary Engineering Report (PER) prepared by Dave Pederson, another P.E. at GDF. He discussed peak flows, BOD and Ammonia levels, average gallons per day, operating costs, plant processes, potential plant locations and, cost and schedule estimates. Mr. Eckenrode mentioned they will begin preliminary design on the plant within the month. He also discussed the need to upgrade the Tuscawilla Plant by replacing the membranes and install a second filter. Mrs. Stolipher mentioned the possibility to purchase the property on the opposite side of City National Bank for future expansions.

The Board provided discussions and was in favor with moving forward with replacing the membranes at Tuscawilla. Mrs. Stolipher will work with Mr. Eckenrode to prepare bid documents for that project. The Board will provide Mr. Eckenrode with comments/revisions on the draft PER. Mrs. Stolipher mentioned Mr. Eckenrode will provide the Board with regular updates on the project and discussed the potential need for a bond issuance for this project as well as the water plant expansion project. The Board provided further discussions.

Action: **No action required by the Board.**

Corporate Authorization Resolution – United Bank

Mrs. Stolipher provided the Corporate Authorization Resolution to authorize current board members as signers on the accounts at United Bank.

Action: **Motion made by Mr. Maxey, second by Mr. Pierson, the Board unanimously approved the Corporate Authorization Resolution.**

MANAGER REPORTS

Utility Manager Report

Mrs. Stolipher provided her report on this month's sewer and water efforts including the NPDES renewal filing, the Deerfield permit renewal, and preparing a request letter to the State regarding the conversion of the corrosion control inhibitor at the Water Plant. She is also waiting for the final decision from the insurance company on the cyber issue previously discussed, but appears it has been denied.

Mrs. Parker questioned whether more staff is needed to handle the operations and what the Board can do to support that.

Action: **No action required by the Board.**

Chairman Report

The Chairman discussed the possible need in the future to move the CTUB office as it continues to grow and both CTUB and the City are continuing to work on the Compensation Study to evaluate salaries and benefits for employees.

Action: **No action required by the Board.**

APPROVAL OF BILLS

January 14, 2026

Action: **Motion made by Mr. Pierson, second by Mr. Maxey, the Board unanimously approved the payment of the bills.**

Mrs. Parker asked for clarification on the chart included in the Utility Manager report as mentioned in public comments. Mrs. Stolipher reviewed the charts showing the gallons for each plant.

EXECUTIVE SESSION

Update on WV PSC Case 25-1000-LRR-WS-C - Possible Executive Session under the provision of W. VA Code 6-9a-4(b)(12) - To discuss any matter which, by express provision of federal law or state statute or rule of court is rendered confidential, or which is not considered a public record within the meaning of the freedom of information act as set forth in article one, chapter twenty-nine-b of the code.

Action: **Motion made by Mr. Pierson, second by Mrs. Parker, the Board unanimously approved convening into Executive Session at 5:32 P.M. to discuss WV PSC Case 25-1000-LRR-WS-C - Possible Executive Session under the provision of W. VA Code 6-9a-4(b)(12) - To discuss any matter which, by express provision of federal law or state statute or rule of court is rendered confidential, or which is not considered a public record within the meaning of the freedom of information act as set forth in article one, chapter twenty-nine-b of the code. The Chairman invited Stephanie Grove, Legal Counsel for the City of Charles Town, to participate in the executive session discussion on the PSC complaint case.**

The Board convened back into public session at 6:16 P.M.

ADJOURNMENT

There being no further business at this time, the Board adjourned the meeting.

Action: **Motion made by Mrs. Parker, second by Mr. Maxey, the Board unanimously approved to adjourn the meeting at 6:17 P.M.**

INFORMATION ONLY

The next meeting is scheduled for Wednesday, January 28, 2026 at 4:00 P.M. at 661 S. George Street.

_____	_____
Brent Manuel	Ashley Stottlemyer
Chairman	Secretary

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting

661 South George Street
Charles Town, WV 25414

Update on WV PSC Case 25-1000-LRR-WS-C - Possible Executive Session under the provision of W. VA Code 6-9a-4(b)(12) - To discuss any matter which, by express provision of federal law or state statute or rule of court is rendered confidential, or which is not considered a public record within the meaning of the freedom of information act as set forth in article one, chapter twenty-nine-b of the code.

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting

661 South George Street
Charles Town, WV 25414

WV-002 Charles Town Road Tank – Possible Executive Session under the provision of W. VA Code 6-9a-4(b)(7) - To plan or consider an official investigation or matter relating to crime prevention or law enforcement.

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting **661 South George Street**
Charles Town, WV 25414

Draft Maintenance Agreement for King's Crossing Subdivision

Attachments:

Draft Maintenance Agreement Kings Crossing.pdf

OPERATION AND MAINTENANCE AGREEMENT

THIS OPERATION AND MAINTENANCE AGREEMENT (the "Agreement")_ is made and effective this _____ day of _____, 2026, by and between the **CITY OF CHARLES TOWN, by and through the CHARLES TOWN UTILITY BOARD**, (hereinafter, "CTUB") and **DR Acquisitions LLC,** (hereinafter, "THE DEVELOPER"), collectively ("the "Parties").

WHEREAS, CTUB has been authorized by City Ordinance Chapter 13, Article II to develop sewage collection and treatment facilities throughout its service area and vicinity to residents and businesses, with public sewer service; and

WHEREAS, CTUB has an Alternate Mainline Extension Agreement (AMEA) with the DEVELOPER that has been approved by the Public Service Commission of West Virginia (PSC) and intend to serve the DEVELOPER'S King's Crossing Development ("Development") with public sewer service; and

WHEREAS, the DEVELOPER is working to complete the construction of the on-site and off-site infrastructure to serve the Development as part of the AMEA which includes an on-site sewage pump station ("Pump Station") and collection system; and

WHEREAS, the Parties believe it would be mutually beneficial to have CTUB operate and maintain the Pump Station and to have the DEVELOPER pay CTUB for the cost to operate and maintain said Pump Station.

THEREFORE, the Parties, for and in consideration of the mutual covenants and conditions herein contained, hereto agree as follows:

A. CTUB AGREES:

1. To provide routine operation and maintenance of the Pump Station and Collection system located within the King's Crossing Development on a monthly basis on an actual time and expense basis for such work. A flat monthly charge will initially be $1,500.00 per month for the first four months of operation, after which the parties will review the actual time and expenses spent and will thereafter use good faith efforts to establish a monthly charge to be charged by CTUB to the DEVELOPER which charge will be used until the infrastructure is accepted into the CTUB system. During the four-month trial period CTUB personnel

will complete and maintain a log of all maintenance activities including date, time, and costs of all work performed pursuant to this Agreement.

2. By January 1st of each year beginning on January 1, 2027, CTUB shall provide to the DEVELOPER its financial analysis of the cost of operating the Pump Station in its preceding fiscal year ended June 30, 2026 and CTUB's proposed flat monthly routine pre-treatment service charge for the next upcoming fiscal year beginning July 1, 2026. The DEVELOPER shall have 60 days from receipt of CTUB'S proposed charge to accept or counter-offer CTUB'S proposed change in the flat monthly charge. In the event the Parties are unable to reach agreement on a flat monthly charge to apply to an upcoming fiscal year by June 1, either Party may terminate this Agreement with 30 days advance written notice to the other Party or alternatively the Parties may continue to pay the flat monthly charge which was previously in effect and submit the amount of the charge to a CPA with public utility experience for resolution of the flat monthly charge to be used for the new fiscal year by binding arbitration. These services under this agreement shall include *routine* operation, inspection, and preventive maintenance of the pretreatment facility. Any successor operator of the Pump Station must have personnel who possess at a minimum a Class C license.

3. The following non-routine items costing less than $2,500 per item related to providing service for the Pump Station will be billed to the DEVELOPER at actual cost incurred by CTUB with invoices provided each month for the expenses: material and equipment; charges for capital telemetry expenses; charges incurred by CTUB, if any, related to discharges from the Pump Station directly caused by DEVELOPER; and similar non-routine costs related to the operation of the Pump Station. The performance of these duties shall be in accordance with sound utility business practice and relevant federal, state, and local statutes, regulations, and ordinances.

4. To provide bills to the DEVELOPER for charges set forth in paragraph A.1. by the 15th of the month following the month in which the services were provided. Bills for electric service to the Pump Station will be billed to and paid by the DEVELOPER until such time

that the Pump Station is accepted into the CTUB system.

5. In addition to routine operation and maintenance provided under paragraph A.1., from time to time there may also be needed emergency and non-emergency repair services estimated to cost more than $2,500.00. An emergency repair is the replacement or repair of any component or system in the Pump Station that has failed or is expected to fail within 60 days in the reasonable judgement of CTUB and such failure interferes with the ordinary operation and performance of the Pump Station or the delivery of wastewater to CTUB's wastewater collection system. CTUB may perform emergency repairs without obtaining approval from the DEVELOPER in advance of undertaking such repair. CTUB will notify the DEVELOPER of such emergency repairs within 48 hours of initiation of such repairs. CTUB will include the cost of emergency repairs on its monthly invoice on a pass-through basis supported by vendor invoices. For any non-emergency repair costing more than $2,500, CTUB shall present to the DEVELOPER its estimate for such repair in writing. The DEVELOPER may elect to have CTUB perform the non-emergency repair or the DEVELOPER may retain others to do so. The DEVELOPER will make such election timely to avoid an issue becoming an emergency repair. CTUB shall provide to the DEVELOPER a monthly detailed invoice of charges made for internal and contract labor, materials, and equipment used in these repair services, including overtime costs for work performed outside of Monday through Friday, 8 am to 5 pm ("Normal Work Week") or on a state holiday. The rates will be based on actual labor rates or at actual rental fees incurred, plus fuel cost, if rental equipment is used. CTUB will include the cost of non-emergency repairs on its monthly invoice on a pass-through basis supported by vendor invoices. The performance of these duties shall be in accordance with sound utility business practice and relevant federal, state, and local statutes, regulations, and ordinances.

6. Extraordinary maintenance shall include replacement of any capital asset and/or other tasks that require support and/or resources that must be obtained in whole or in part from a third party and such work is estimated to cost $2,500.00 or more. CTUB shall provide to the DEVELOPER written quotes or estimates for the cost of such work. Overtime costs for Town employees shall only apply to work performed outside of Normal Work Week hours

or on a state holiday. Extraordinary maintenance tasks, except to the extent reasonably necessary to address an emergency situation, shall be subject to prior approval of the DEVELOPER and included in the DEVELOPER'S budget. CTUB shall pay such expenses to vendors and submit electronic invoices to the DEVELOPER for prompt reimbursement. CTUB will include the cost of extraordinary maintenance on its monthly invoice on a pass-through basis supported by vendor invoices. The performance of these duties shall be in accordance with sound utility business practice and relevant federal, state, and local statutes, regulations, and ordinances.

7. To be responsible for making any necessary report of violations occurring at or near the pretreatment facility to the West Virginia Department of Environmental Protection.

B. THE DEVELOPER AGREES:

1. To compensate CTUB for services rendered under Section A. above for any undisputed invoices within thirty (30) days of the invoice date if CTUB participates in the DEVELOPER'S electronic payment system.

2. To provide to CTUB copies of any/all operations and maintenance manuals, as built drawings, and any other records regarding the pretreatment facility reasonably needed by the CTUB in furtherance of the duties herein. CTUB shall maintain these documents and any other documents pertinent to the Pump Station for the term of this Agreement.

3. To arrange in its name for an annual contract to have a pumper truck be reasonably available and to pay directly to the vendor for proving said pumper truck services.

4. To allow CTUB reasonable access and control of the operation and maintenance of the Pump Station.

5. In the event that the Pump Station is operated on a temporary power source after the Pump Station start-up that the DEVELOPER will extend the warranty period of the pumps and

equipment to CTUB for the duration that is required to establish permanent power. Assets will not be accepted into the CTUB system until permanent power is established, however, the manufacturer's warranty period begins at start-up even if done so utilizing a temporary power source. CTUB will require a full warranty period by the DEVELOPER equal to the duration provided by the manufacturer while on permanent power.

C. THE PARTIES AGREE THAT:

1. This Agreement is the complete agreement between the Parties.

2. The Parties agree that any fines or penalties, as a result of discharge violations imposed by a regulatory body shall be borne by the Parties according to their proportionate share of fault, if such fault is proven. CTUB shall be responsible for any fine and/or penalty incurred as a result of discharge violations under CTUB'S permits except for those fines and/or penalties that are a direct result of discharge violations that are a result of:
   a. the introduction by the DEVELOPER of prohibited materials into CTUB's sewer system;
   b. the DEVELOPER not following a recommendation of CTUB for non-emergency or extraordinary maintenance referred to in paragraphs A 5. and A 6. above; or
   c. a result of the DEVELOPER sending a volume of sewer flow that exceeds the permitted capacity of CTUB'S wastewater treatment plant.

3. This Agreement may be amended only by written modification, executed by both Parties.

4. The term of this Agreement shall be for two (2) years from the date first written above, but in no case shall extend for a period of longer than five (5) years, subject to the right of termination as stated herein and in State Code. The Parties will confer regarding renewal or modification of this Agreement by July 1 of each year and prepare an appropriate renewal or modification prior to the expiration of the initial term for timely review and approval by the respective governing bodies of the Parties. If a party chooses not to extend this Agreement for an additional term, said party must notify the other party of its intent not to extend this Agreement not less than

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sixty (60) days prior to the expiration of the term of the Agreement.

5. Either party has the right to terminate the Agreement at any time if the other party has breached this Agreement. The Parties agree to provide sixty (60) days' notice prior to termination for breach by the other party to enable the party in breach an opportunity to cure the breach. Should the breach be cured within the sixty (60) days, the non-breaching party may grant a greater period of time for the cure at its sole discretion. This provision does not modify the DEVELOPER'S right under state law to terminate any contract upon thirty days advance notice without cause.

6. This Agreement shall be binding upon the successors and assigns of the respective Parties.

7. Any notice, demand, or request given regarding this agreement shall be effective if sent by first class mail, postage pre-paid, to:

   CHARLES TOWN UTILITY BOARD,
   Attention UTILITY MANAGER,
   661 South George Street,
   Charles Town, West Virginia 25414;

   DR ACQUISITIONS
   Attn: Matthew Stare
   225 Armenian Oak Dr. Suite 101
   Frederick, MD 21701

8. This Agreement is governed by the laws of the State of West Virginia.

9. CTUB represents and warrants to the DEVELOPER that the execution, delivery, and performance of this Agreement by CTUB has been duly authorized, and this Agreement constitutes a valid and binding obligation of CTUB enforceable in accordance with its terms, and the execution and performance of this Agreement by CTUB will not violate the law or

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violate any instruments relating to the operation of its sewerage system.

10. The DEVELOPER represents and warrants to CTUB that the execution, delivery, and performance of this Agreement by the DEVELOPER has been duly authorized, and this Agreement constitutes a valid and binding obligation of the DEVELOPER enforceable in accordance with its terms, and the execution of and performance of this Agreement by the DEVELOPER will not violate any provision of the law.

[Signatures Appear on Following Page]

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IN WITNESS WHEREOF, The City of Charles Town, by and through the Charles Town Utility Board and Forestar (USA) Real Estate Group Inc. have caused this Agreement to be signed by their proper and duly authorized officers and effective as of the ____day of _____, 2026.

CITY OF CHARLES TOWN, by and through the CHARLES TOWN UTILITY BOARD

by: _____

_____, Chairman

DR ACQUISITION

by:_____

_____

Print name and title

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STATE OF WEST VIRGINIA,

COUNTY OF JEFFERSON, to wit:

The foregoing instrument was acknowledged before me this ____day of _____, 2026, by _____, duly authorized to act for and on behalf of the City of Charles Town, by and through the Charles Town Utility Board.

My commission expires:_____

[seal]

_____

Notary Public in and for the State of West Virginia

STATE OF _____,

COUNTY OF _____, to wit:

The foregoing instrument was acknowledged before me this ____day of _____, 2026, by _____, duly authorized to act for and on behalf of Forestar (USA) Real Estate Group, Inc.

My commission expires:_____

[seal]

_____

Notary Public in and for the State of _____

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CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting **661 South George Street**
Charles Town, WV 25414

GDF Wastewater Preliminary Engineering Report

Attachments:

Draft WW System PER Jan 2026.pdf

PRELIMINARY ENGINEERING REPORT
FOR THE WASTEWATER TREATMENT AND COLLECTION SYSTEM

CHARLES TOWN UTILITY BOARD
CITY OF CHARLES TOWN
JEFFERSON COUNTY, WV

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JANUARY 2026

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SECTION 3: REVIEW OF CURRENT PERMIT LIMITS AND EXPECTED CHANGES

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A Current NPDES Permit
B Preliminary Site Plans
C Floodplain Mapping
D Overall System Map
E Example Process Flow Schematic

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SECTION 1: INTRODUCTION

The purpose of this preliminary engineering report is to review the current state of the Charles Town Utility Board's Wastewater System as a whole. In particular to identify the current capacity of the system and compare to the demand placed on the system with anticipated growth in mind. The system consists of two (2) wastewater treatment facilities, numerous pump stations, and the associated collection system. GD&F reviewed the entire system at a high level to identify the major areas of concern for capital project spending to keep pace with increasing demand. The scope of work included:

- inspection of physical condition for various components,
- coordination with the Operators,
- review of collected process data,
- review of current NPDES Permit,
- comparison of treatment facility alternatives, and
- recommendation of selected alternatives.

The desired result of this report was to recommend solutions to best serve the long-term interest of the area and provide areas of focus for planning of capital projects.

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SECTION 2: ASSESEMENT OF EXISTING FACILITIES

2.1 Charles Town Wastewater Treatment Plant

The Charles Town Facility is a Sequencing Batch Reactor (SBR) treatment facility which operates as an Intermittent Cycle Extended Aeration System (ICEAS) and has a hydraulic capacity of 1.75 million gallons per day (MGD). Wastewater treatment components include preliminary treatment consisting of one (1) fine perforated plate screen and compactor, one (1) grit removal system with a washer/compactor, one wet well with three (3) submersible pumps, an influent distribution box, three (3) SBR process trains operated in parallel with chemical addition for phosphorus removal, one (1) post SBR equalization tank, six (6) denitrification filters operated in parallel (currently bypassed) with chemical addition for phosphorus removal and carbon addition for denitrification, and one (1) ultraviolet (UV) disinfection system. The solids handling consists of three (3) aerobic digesters operated as sumps to transfer sludge to the 660,000-gallon aerobic digester and a centrifuge for final dewatering. The dewatered solids are currently land applied.

The Facility recently underwent a large renewal and replacement project focusing on major components including the influent/effluent pumps, headworks screen and grit removal, SBR control system and components, digester mixing system, and UV system. The majority of this equipment had reached the end of its useful life and was in severe need of replacement. In particular, the SBR Control System was extremely susceptible to damage from minor power surges, rendering the bulk of treatment operations completely out of service until the system could be repaired. Increased flows and loadings from system expansion were placing additional strain on the Facility. The existing sludge handling system was rehabbed as a result of these increasing loads, providing additional storage & dewatering capacity.

Figure 1. Original Headworks Screen



Figure 2. Original Grit Removal and Classifier



Figure 3. Upgraded Headworks Screen

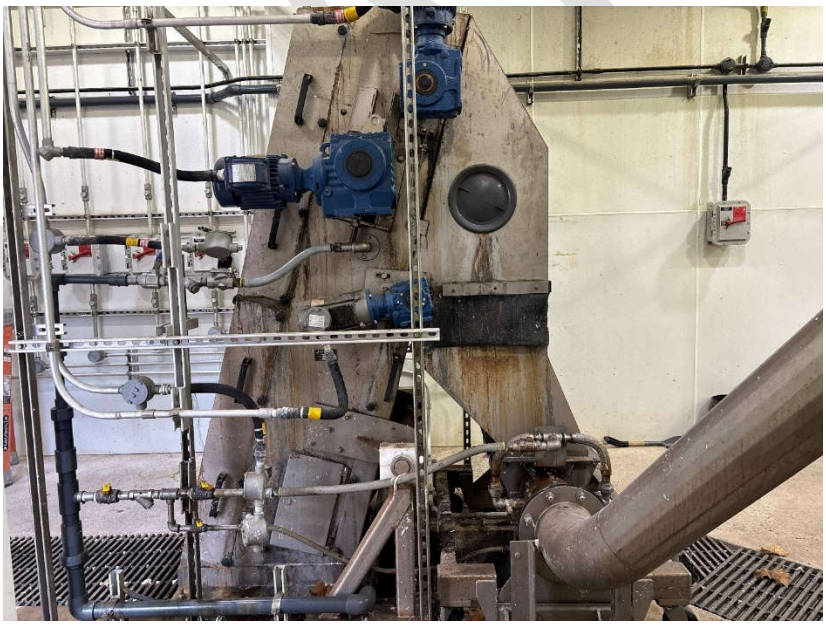

Figure 4. Upgraded Grit Removal and Classifier



Figure 5. Original Influent Pump Controls



Figure 6. Original Belt Filter Press



Figure 7. New Centrifuge to replace Belt Filter Press



Figure 8. Original UV Equipment



Figure 9. Upgraded UV Equipment



Despite these necessary upgrades, several areas throughout the Facility will be in need of improvement over the course of the next several years as maintenance, even without considering the need for additional treatment capacity. These upgrades have been summarized with cost estimates in Section 2.1.2.

2.1.1 Operating Costs

Based on budget costs from 2019 – 2023 (summarized in Table 1), the Charles Town Facility costs approximately $500,000 to $600,000 to operate annually. This operation cost consists mainly of Chemicals, Maintenance, and Power usage. These operating costs are projected to increase as a result of the recent upgrades, primarily due to the use of the 150 HP digester blowers. Operation

of the blowers is necessary in order to provide additional digestion time and storage associated with increased loading to the Facility over the last several years. The new Centrifuge also consumes more power than the Belt Press System did previously. However, the additional power cost will be offset to a large extent by reduced polymer usage and trucking costs as a result of better dewatering and elimination of the lime feed requirement.

Table 1. Charles Town WWTF Operating Cost Summary

	2019	2020	2021	2022	2023
Maintain Pumping Equipment*	$ 50,000	$ 40,000	$ 40,000		
Chemicals	$ 170,000	$ 170,000	$ 190,000	$ 155,000	$ 177,471
Lab Supplies & Expense	$ 45,000	$ 45,000	$ 30,000	$ 35,000	$ 30,144
Maintenance	$ 205,000	$ 200,000	$ 200,000	$ 240,000	$ 183,209
Power	$ 165,000	$ 150,000	$ 150,000	$ 130,000	$ 139,034
Operation Supplies/Expenses	$ 50,000	$ 75,000	$ 100,000	$ 102,000	$ 77,336
Sludge Hauling					$ 4,703
Yearly Total	$ 635,000	$ 605,000	$ 610,000	$ 560,000	$ 529,858

*Pumping equipment was combined for both plants after 2021.

These operating costs do not include the $115,000 to $125,000 spent to maintain the sludge disposal location. Currently sludge is land applied at a nearby farm which is significantly cheaper than landfill disposal. Conservative estimates for landfill disposal range from $150 to $175 per ton which would translate to roughly $850,000 per year.

2.1.2 Operation Concerns & Future Upgrades

Operationally, the Facility is nearing maximum treatment capacity. Routine, intermittent high-strength influent wastes from the Collection System push the already stressed facility to the limits and force the Operators into protective measures to protect the system bio-mass. Recovery in some instances can take multiple days. These high strength events carry over into the sludge treatment process and cause further complications with consistent digestion. Investigation into these events has proven difficult as they are variable and happen inconsistently.

Several critical portions of the Facility will likely need addressed in the near term as part of normal wear-out and required increases in capacity. The most critical item to be replaced are the existing effluent pumps. These pumps have been periodically maintained and currently function, but will require replacement in the near term. They should be replaced with VFD-rated versions to reduce wear from excessive starting and stopping. The existing aeration blowers are in various states of operability. Some of them have had replacement motors and other work completed; however, CTUB should be preparing for wholesale replacement of the aeration equipment in the near to mid-term. Similar to the effluent pumps, significant operational savings could be achieved by replacing the existing positive displacement type blowers with VFD capable blowers trimmed based on actual air requirements.

Secondary treatment of the facility includes a denitrification system which controls the chemical feed for the entire Facility. The chemical feed system supplies PACL 2000 for phosphorus removal in the ICEAS Process and Micro C2000 for dentification. The existing chemical feed pumps are oversized for normal process flows, while the storage tank supplying them is too small to accept a full bulk truck delivery of chemical. This leads to inefficient chemical dosing and increased costs for partial chemical deliveries. The denitrification system has been unable to be used as a result of poor headworks screening. The equipment requires a near total refresh to be in working condition, including replacement sand, air compressors, control upgrades, and miscellaneous components in each cell.

The aforementioned items are not an exhaustive list of requirements to maintain the current Facility, but highlight the items that will require the largest input. Other minor projects could be undertaken to improve operability and efficiency such as a Facility utility water, but the costs and cost savings afforded by these projects are relatively minor to the others discussed here. Cost estimates for those upgrades mentioned are expanded further in Section 5. Anticipated operational cost savings were not considered in any of these cost estimates for simplicity in future comparisons.

2.2 Tuscawilla Wastewater Treatment Plant

The Tuscawilla Facility is a Biological Nutrient Removal (BNR) intergraded with a Membrane Bio-Reactor (MBR) treatment facility having a hydraulic capacity of 0.50 million gallons per day (MGD). Wastewater treatment components include preliminary treatment consisting of one (1) coarse bar screen and compactor, one (1) grit removal system with a washer/compactor, one (1) flow equalization impoundment, one (1) wet well with four (4) submersible pumps and two (2) fine drum screens and compactor, two (2) BNR process treatment trains operated in parallel, chemical addition for phosphorus removal and carbon addition for denitrification, three (3) MBR basins operated in parallel, one (1) ultraviolet (UV) disinfection system and a utility water system. The solids handling consists of an aerobic digester. Liquid sludge is transported to the Charles Town WWTF for further processing and disposal. The facility primarily serves the Tuscawilla Hills Subdivision and Locust Hills area. Treated wastewater is discharged to the Tuscawilla Golf Course ponds and irrigation system (to the west) and also into Evitts Creek, which is a tributary to the Shenandoah River, via a pumping system (to the east). The Tuscawilla WWTF completed construction in the fall of 2014.

A new membrane module was installed in one of the three (3) total bays in 2021 to replace the original membranes which had become fouled and incapable of being brought back to working order. The original membrane was left in one of the spare cells for future disposal. Other minor upgrades such as addition of an eductor priming system for the membranes were implemented to optimize plant performance and maintain operations at the optimum capacity of 0.25 MGD through the membrane. While Tuscawilla has proven invaluable in reducing the load sent to the Charles Town WWTF, operating at approximately half of the original design capacity has led to operational challenges. Several options exist to maximize the potential capacity of the Facility and are discussed with the associated cost estimates in Section 2.2.2.

2.2.1 Operating Costs

Based on budget costs from 2019 – 2023 (summarized in Table 2), the Tuscawilla Facility costs approximately $180,000 to $260,000 to operate yearly. Similar to the Charles Town Facility, operation cost consists mainly of Chemicals, Maintenance, and Power usage. There were increased costs associated with startup in 2019 and membraned module replacement in 2021. Compared to the Charles Town Facility, Tuscawilla is more expensive to operate on a treatment volume basis. However, Tuscawilla uses a Membrane Bioreactor (MBR) treatment process which produces a much higher quality effluent than Charles Town's ICEAS Process.

Table 2. Tuscawilla WWTP Operating Cost Summary

	2019*	2020	2021	2022	2023
Maintain Pumping Equipment	$ 75,000	$ 40,000	$ 30,000		
Chemicals	$ 55,000	$ 40,000	$ 20,000	$ 20,000	$ 6,977
Lab Supplies & Expense	$ 10,000	$ 7,000	$ 5,000	$ 7,000	$ 14,034
Maintenance	$ 150,000	$ 75,000	$ 50,000	$ 80,000	$ 102,802
Power	$ 120,000	$ 100,000	$ 75,000	$ 75,000	$ 91,713
Operation Supplies/Expense					
Sludge Hauling					$ 22,633
Yearly Total	$ 410,000	$ 262,000	$ 180,000	$ 182,000	$ 238,159

2.2.2 Operation Concerns & Future Upgrades

The Facility is hydraulically capable of treating 500,000 gallons a day. However, the capacity is simultaneously bottlenecked in several locations and oversized in others that create process difficulties running the plant at anything other the hydraulic capacity. Equipment such as the blowers, recycle activated sludge pumps, and associated piping are simply too large to operate with only one (1) MBR train in service. Compounding this issue, the lack of a dedicated anerobic zones prevents adequate phosphorous removal. The Facility was designed with three (3) MBR cells for final polishing before discharge. However, the entire process tank is uncovered and was not provided any sort of removal mechanism for the membranes themselves. This lack of equipment prevents operational ability to clean, inspect, and maintain the existing equipment. The lack of roof covering also leads to freeze/thaw issues with piping, valves, and other appurtenances. Three (3) membranes were originally installed and CTUB struggled to operate the Facility with the low flow rate afforded by the original. In 2021, a single membrane was replaced at a cost of approximately $360,000. The original membrane is still in place, but completely inoperable. The lifespan of these types of membranes is typically 5-10 years, which means CTUB should be expecting to install a new membrane in the near future if this Facility is expected to continue operations. In recent years, this membrane material (PVDF) has drastically increased in cost compared to the last installation. Although newer membranes are capable of treating

increased flows, the Facility will always be process limited by the physical size of the basins. To significantly increase throughput capability, additional tankage must be installed.

Other equipment throughout the Facility must also be considered to keep it in working order and reduce the load to the Charles Town Facility. Chiefly, headworks operations will need significant maintenance and upgrades. As a result of long detention times in the collection system, hydrogen sulfide is a major concern in the headworks process, leading to significant deterioration of the equipment in headworks room and smell complaints from the surrounding community. The existing headworks screening system also does not have full redundancy and the screens are in need of major repair and/or replacement. The headworks storage lagoon compounds this issue by further extending the time before sewage treatment. The storage lagoon system consists of an unlined, open pond with a suspension aeration system. Use of the lagoon is required to buffer the diurnal peak flows while maintaining the low flow rate required at the plant. However, the aeration required to prevent septicity also partially treats the stored water which creates further issues in the downstream biological process by reducing the biological oxygen demand. The partial treatment also results in settled solids dropping out in the pond, furthering the odor complaints when the lagoon is at a low level and the solids are exposed to the air. Solids generated at Tuscawilla are at least partially aerobically digested before being trucked to the Charles Town Facility.

In summary, the Tuscawilla Facility represents an important aspect to the CTUB treatment capacity, the Facility will require relatively significant investments in the near, mid, and long term to continue to operate. Cost estimates for upcoming projects already discussed as well as others that are anticipated are summarized in Section 4. Several of these costs are exclusive, i.e. PVDF versus ceramic membrane replacement. Further commentary of these options is examined in later sections.

2.3 Wastewater Collection System

The Collection System as a whole consists of approximately 60 miles of piping ranging in size from 1 1/4” to 24”. Around 78% of this piping is gravity sewer while the remainder serves pump stations as force main piping. A summary of the existing piping material and size is provided in Table 3. Approximate age of the piping is not listed within CTUB’s existing GIS system, however most of the collection system piping is PVC indicating it is likely not more than fifty years old. The Utility Board continues to maintain the system and replace sections of line where necessary. A large-scale Collection System Project began in 2025 and is expected to be completed in 2026 to rehabilitate 8,500 feet of Forcemain and 4,500 feet of gravity sewer and upgrade several pump stations.

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Table 3. Collection System Piping Size Summary

Line Size, inches	Gravity	Forcemain
0/Not Listed	13,496	600
1.25	-	333
2	-	3,878
3	-	2,517
4	5,639	13,765
6	21,554	35,521
8	169,631	10,709
10	16,182	534
12	6,769	4,588
15	5,154	-
16	-	-
18	3,032	-
22	181	-
24	2,106	-
Total Length, feet (miles)	243,746 (46)	72,446 (13)
Percent	77%	23%

Table 4. Collection System Piping Material Summary

Line Size, Inches	Asbestos	CMP	Ductile	PVC	Terra Cotta	Not Listed
	109	-	-	3,086	-	3,854
0	109	-	-	3,086	-	3,854
1.25	-	-	-	333	-	-
2	-	-	-	3,878	-	-
3	-	-	-	2,517	-	-
4	-	33	144	13,015	-	6,242
6	492	-	-	46,906	418	9,259
8	1,371	66	169	135,891	289	42,696
10	-	-	282	15,002	21	1,410
12	83	-	322	9,439	-	1,514
15	-	-	-	5,154	-	-
16	-	-	-	-	-	-
18	-	-	485	1,722	-	825
22	-	-	-	181	-	-
24	-	-	-	964	-	1,142
Total Length, feet	2,164	100	1,401	241,175	728	70,796

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Based on the materials listed, most of the major piping that has been installed is relatively new and should be in good condition in the near-term. CTUB actively investigates leaks and problem areas for identification in major projects moving forward. The 2025 Collection System Project will address around 1 mile of major gravity sewer and 1.7 miles of new forcemain as well as rehabilitating 4 pump stations and building 1 new. However, this project only accounts for 4% of the collection system and will cost approximately $6.5 Million to complete. These numbers do not significantly increase the capacity of the collection system which will be needed in the near future as a result of significant growth in the area. These projections are further investigated later in this report.

2.4 Major Pump Stations

Of the daily flow that is conveyed to the two (2) treatment facilities, a large majority of it is pumped prior to entering gravity sewers and significant portions must be pumped through multiple pump stations. This increases the sewage age throughout the system and contributes to considerable hydrogen sulfide issues. The collection system and its major pump stations have been organized into flow chart format and included as Figure 10. CTUB operates more than fifty pump stations of various capacities within the collection system. The pump stations vary in age, condition, and complexity. Major pump stations have been summarized in Table 5. The pump stations have also been assigned a ranking from 1 to 3 on order of importance and current condition (e.g. 3/3 indicates a very important pump station in poor condition). This ranking has been color coded in Table 5 to convey stations with the highest priority for attention.

Table 5. Major Pump Stations

Color Coding Legend

3/3	Highest Priority for Attention
2/3 or 3/2	Very Important and/or poor condition
1/2 or 2/1	Lowest Priority

Importance	Condition	Pump Station Name	HP	GPM
3	3	Samuel Street	20HP	
3	3	Breckenridge	30HP	600
3	3	Flowing Springs	70HP	1,400
3	2	Huntfield	23HP	600
3	2	Willow Spring	60HP	370
3	2	Clarence Drive	25HP	425
3	2	Demory	40HP	335
3	1	Burr Park East	22.8HP	919
3	1	Northport	15HP	317
3	1	War Admiral	100HP	
2	3	Racetrack	15HP	
2	3	Briar Run 1	5HP	88
2	3	Briar Run 2	3HP	112
2	3	Weirick Street		

2	3	Mountaineer	30HP	
2	3	Park	30HP	
2	1	Wendy's	23HP	600
2	1	Greenfield	7.5HP	103
2	1	Bellair	15HP	148
2	1	Magnolia Springs	70HP	
1	3	Burr, Royal	10.5HP	
1	3	Burr West	3HP	200
1	3	Hillside		
1	3	Belvedere	4HP	
1	3	Spruce Hill North	7.5HP	88
1	3	4th Avenue		
1	3	Original (Little) Demory	2HP	
1	3	Marlowe Rd (Tractor Supply)	20HP	
1	2	Jefferson High	20HP	180
1	2	Cranes Lane	5HP	100
1	2	Ashley Brin	2.4HP	41.8
1	2	Craig Hill	3HP	84
1	1	Job Corps	23HP	80
1	1	Jetts Farm		287
1	1	Moose Lodge	7.5HP	310
1	1	Woodlawn MHP	5HP	33
1	1	Driswood	2HP	27
1	1	Spruce Hill	5HP	100

Several of the major pump stations lack adequate flow monitoring and are undersized for the demand placed on them. In other areas, multiple pump stations share forcemain piping which changes the pump conditions, further straining the existing systems. CTUB has begun to implement standard pump station requirements system wide to include standardized pumps, flow metering, emergency call out systems, and standardized pump controls to increase monitoring of the stations and provide advanced notice of potential failures.

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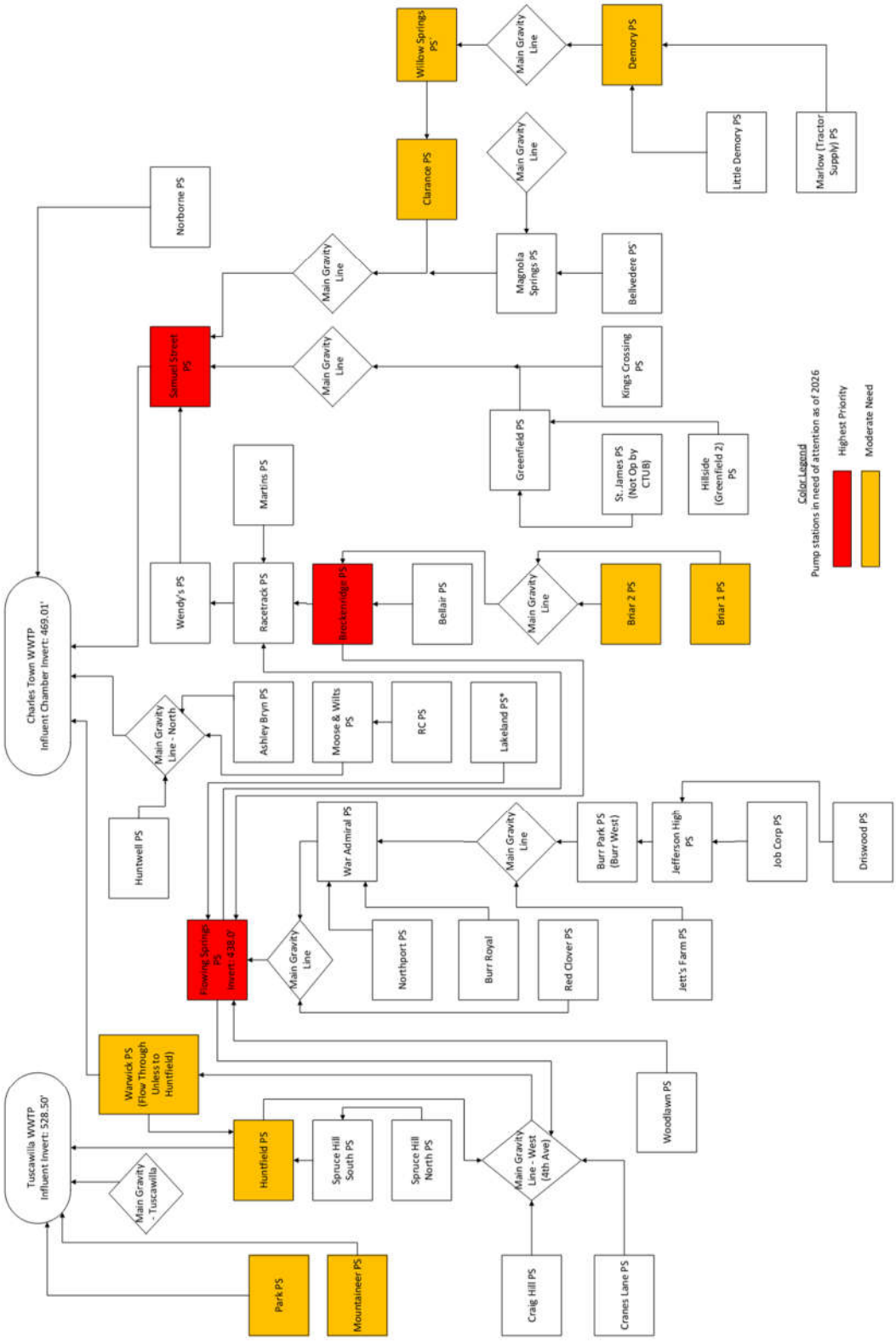
Figure 10. Charles Town Collection System Flow Chart



2.5 Industrial Users

The wastewater system consists of eight (8) industrial users, summarized in Table 6. The composition of the industrial waste varies widely, but overall contributes minimally compared the domestic wastewater flow. Combining all of the maximum daily flow from each source accounts for less than 5% of the Charles Town Facility's maximum permitted flow. The users that could potentially convey high strength waste to the treatment facilities are not directly connected to the collection system and must haul their waste to the Charles Town Facility for disposal. This greatly reduces the possibility of introducing harmful wastes to the treatment processes. The user with the greatest potential to do so is the Jefferson Medical Center as they do have a direct connection to the collection system. However, the permit conditions specifically prohibit disposal of leftover foods, grease, medications, and chemical wastes. Small amounts of non-domestic, laboratory wastes are permitted.

Table 6. Industrial Users and Daily Volumes

Industrial User	Outfall Designation	Maximum Daily Flow, gallons	Frequency
Charles Town Water Plant	IU01	10,000 (80,000 monthly)	Monthly *Flow not measured
Rockwool	IU02	30,000 (17,000 monthly average)	Monthly
USDA	IU03	5	Quarterly
DALB, Inc.	IU04	2,000	Quarterly
Apple Valley Waste	IU05	20,000	Quarterly
Jefferson Co. Board of Education	IU06	100	Quarterly
Hollywood Casino	IU07	8,000	Quarterly
Jefferson Medical Center	IU08	12,000 combined Non-domestic: 10 (30 monthly maximum)	Monthly *Flow not measured
Maximum Combined Daily Volumes, gallons		82,105 (~6% of Average Daily Flow)	

Sampling of the industrial users are the responsibility of CTUB with the exception of USDA and the Jefferson Co. Board of Education. All industrial user agreements are coordinated with CTUB, but enforcement of exceedances is the responsibility of WVDEP. The majority of sampling is required monthly, but some are quarterly. Refer to Section A of the current NPDES Permit included in Appendix A.

2.6 Operating Costs

Based on budget costs from 2019 – 2023 (summarized in Table 7), the Collection System costs approximately $350,000 to $850,000 to operate yearly. The majority of the collections specific costs are attributed to maintenance of the system itself (line cleaning, repair, etc.). The next largest operating cost is maintaining existing pump stations. The amount spent on maintaining existing systems is directly related to the age/condition and the total number of pump stations. CTUB personnel have a difficult time performing preventative maintenance on any portion of the system because of the current condition and sheer number of locations to be serviced. The minimal amount of gravity collection leads to increasingly difficult to maintain systems with high complexity.

Table 7. Collection System Operating Cost Summary

	2019	2020	2021	2022	2023
Maintenance	$188,525	$358,000	$368,000	$350,000	$218,051
Collection Supplies & Expense				$20,000	$16,561
Power & Fuel Pump	$100,000	$105,000	$120,000	$135,000	$125,274
Pump Supplies/Expense	$25,000	$40,000	$40,000	$25,000	$18,444
Pump Station Maintenance	$40,000	$275,000	$300,000	$250,000	$120,047
Sludge Hauling					$38,216
Yearly Total	$353,525	$778,000	$828,000	$780,000	$536,593

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SECTION 3: REVIEW OF CURRENT PERMIT LIMITS AND EXPECTED CHANGES

3.1 Current NPDES Permit

The regulated facilities covered by the existing permit consist of two (2) outlets and fourteen (14) inspectable units (including Industrial Users and physical outfall locations). Each of the inspectable units has specific discharge limits based on the upstream drainage. Most discharge limits are typical for this type of NPDES Permit. The permit contains several items that require a Plan of Action to be submitted to WVDEP, mainly related to flow increases. If the average monthly flow for either Facility reaches 90% of the average design flow or significant extensions to the Collection System are made a Plan of Action must be submitted to WVDEP to review flows and propose a response to maintain treatment capacity. A review of the current monthly average flow and projections are included in the next section.

Annual effluent loading limits for Nitrogen and Phosphorous are listed separately for each Facility. However, the permit allows for the loading from each outfall to be totalized since they both discharge to the same receiving stream. As shown in the next section, CTUB has consistently discharged less than their available nutrient limits. There is currently no program for nutrient trading in West Virginia, but the permit does allow proposals to be submitted to offset treatment costs.

Solids management is also combined between the two Facilities. Sludge generated at the Tuscawilla Facility is partially digested on-site, then trucked to the Charles Town Facility. The permit requires Tuscawilla sludge to be placed into the process after primary treatment. Additionally, solids from the settling process of the water treatment plant are transported and mixed into the dewatering system. CTUB is permitted to land apply sludge at several locations per the usual Chapter 503 limitations. Additionally, the sludge may be disposed of at a landfill provided prior approval. The only additional requirement for disposal at a landfill is achieving a minimum of 20% solids.

The current permit as it exists at the time of writing is included as Appendix A. The permit is in the process of being renewed by the end of 2025.

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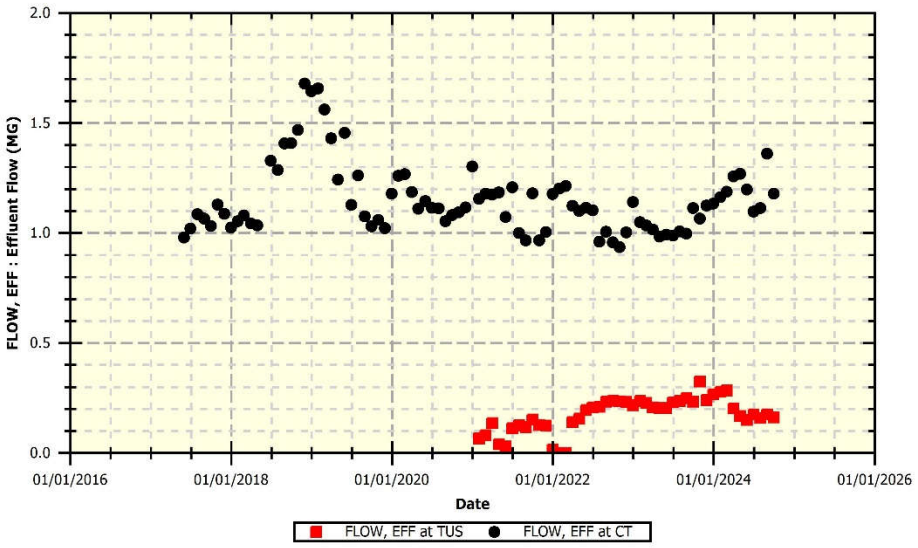
SECTION 4: ANALYSIS OF FLOW RATES, CONCENTRATIONS, AND LOADINGS

A bulk analysis of data available from 2017 to 2024 was performed to review current loading on the system and project future demands. The primary concern is the increased flow from recent developments to the existing wastewater treatment facilities. The main trigger requiring planning for expansion per the NPDES Permit is three (3) consecutive monthly effluent flows from each facility, 1.58 MGD and 0.45 MGD respectively for Charles Town and Tuscawilla. Monthly effluent flow from each Facility has been summarized in Figure 11. Notably, the total system flow is approaching the limit for the Charles Town Facility. Without Tuscawilla processing 10-15% of the system, this limit will be reached in the near future. The Charles Town Facility did exceed these limits in 2018; however, this was during a period of extreme rainfall. Tuscawilla is not likely to trigger the 0.45 MGD limit until additional membranes are added to the process to eliminate the hydraulic limitation of one membrane in operation rated for 0.25 MGD.

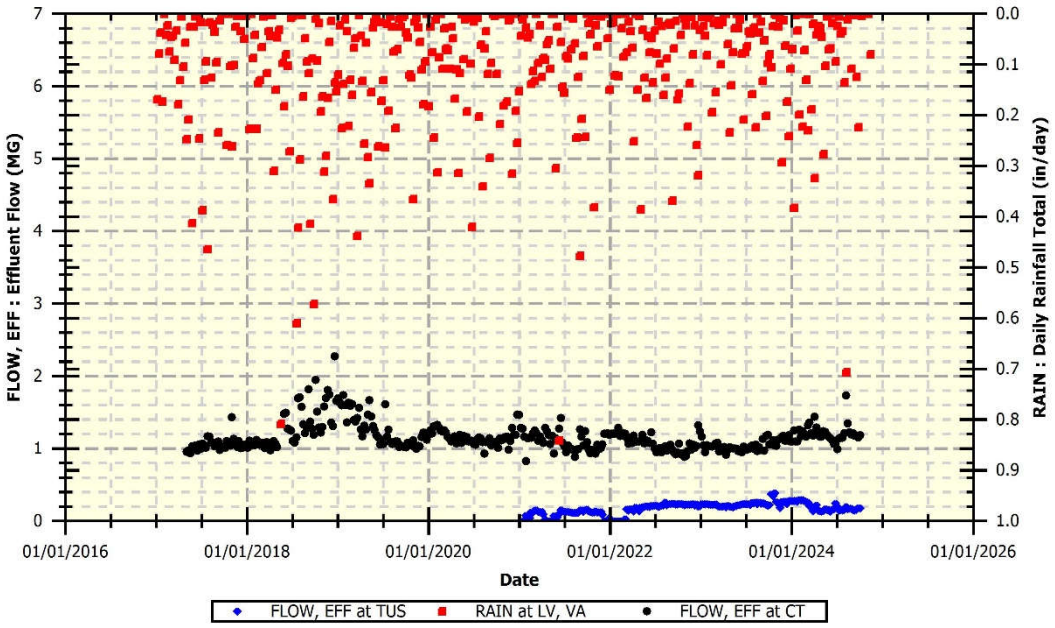
Figure 11. Average Monthly Effluent Flows 2017 - 2024



Inflow and infiltration (I&I) can represent a significant portion of treated flow depending on the age and condition of the collection system. In general, it does not appear as though inflow and infiltration (I&I) have a major contribution to overall influent flows. Figure 12 depicts the effluent flow from both facilities versus precipitation measured from the Lovettsville, VA meteorological station (1). Excepting the abnormally wet season observed in 2018, effluent flows appear to be reasonably steady regardless of precipitation amounts over the study period. I&I is difficult to calculate directly as it is the result of many openings throughout a system and depends on many factors including rainfall, antecedent conditions, and groundwater tables. One method from the EPA bases I&I on conditions recorded during dry weather to establish a “dry-weather allowance” and assumes flows above this level are attributed to I&I. WVDEP establishes an I&I allowance of 200 gallons per inch diameter of piping per mile per day. While WVDEP’s method allows for relatively straightforward calculation of anticipated I&I, the EPA method is more subjective and difficult to assign with certainty. There were several weeks in the study period with 0 inches of reported rainfall; influent flows throughout these periods ranged from 0.97 – 1.46 MGD while the average and median of those flows were both 1.18 MGD. Therefore, the dry-weather allowance per the EPA method is 1.18 MGD. Combining WVDEP’s design allowance and CTUB’s approximately 46 miles of

gravity piping ranging from 4 to 24 inches results in an added flow of 74,000 gallons per day for a total "normal" flow of approximately 1.2 MGD which is reasonably close to the flows observed during the study period. Based on this information, it does not appear that CTUB's collection system has excessive I&I.

Figure 12. Influent Flow and Precipitation 2017-2024



Special attention should be given to the sudden increase of effluent flow at Charles Town beginning around June of 2023 in Figure 11. Charles Town and the surrounding area of Jefferson County has recently experienced a significant population increase, inducing demand on the sewer system. Charles Town, WV has experienced rapid population growth in recent years. According to U.S. Census data (2), the city's population increased from 6,526 in 2020 to approximately 7,672 in 2023, and estimates for 2024 place it near 8,869 (3). This represents a growth of nearly 36% in just four years, translating to an annualized growth rate of about 7.9%. The City of Ranson has experienced similar growth at a slightly lower rate. However, there are many developments under construction and planning that will be discussed later in the report. The surrounding county has grown at a more moderate but steady rate. The county's population rose from 57,785 in 2020 to about 61,264 in 2024 (2) (3), an increase of roughly 6% over four years. This equates to an annual growth rate of approximately 1.5%, which is higher than the long-term historical average of 0.8% but still far below the surge seen in Charles Town. Continuous growth at 36% every four years for the sewerage system is not likely nor reasonable to assume for long term planning. The more reasonable assumption for use in this report is 2-4% for the next several years, tapering to a growth rate more in line with the long-term national average of approximately 0.85% per year.

Translating these growth projections into anticipated flows for use in design can be completed using recent study (4) which noted an equivalent dwelling unit (EDU) size of 3 persons and an associated water usage of 210 gallons per day per EDU. Actual usage per water production numbers typically fall closer to 100 GPD/EDU, but estimates for I&I generally add between 100 and 150 GPD/EDU (5). Based on the 210 GPD/EDU rating, the total treatment capacity of both Facilities (2 MGD), and the recent combined effluent flows between 1.3 and 1.5 MGD, CTUB has the capacity to bring on between 2,380 and 3,570 additional

EDUs before exceeding the hydraulic capacity of the treatment system. Comparing these figures to planned developments in the near term reveals a desperate need for additional sewage treatment capacity. Considering only those developments currently under construction, there are 5,329 remaining EDUs to be completed, greatly exceeding the remaining available capacity by a significant margin.

While the hydraulic limitations of the existing system are in danger of being exceeded in the near term, the treatment process is in a worse state of strain. Each Facility appears to have more than adequate treatment when it comes to oxygen demand, but struggles with nutrient loading and aluminum limitations. The root cause of these issues appears to lie with high strength contributors to the collection system rather than the treatment process itself. Generally, municipal wastewater systems are subject to concentrations of Ammonia around 25 mg/L and Biochemical Oxygen Demand (BOD_5) around 190-300 mg/L. There are several instances of *effluent* Ammonia concentrations between 10 and 30 mg/L after full treatment has been applied. Influent sampling has shown Ammonia concentrations in excess of 40 mg/L. Additional influent sampling for BOD_5 has shown results greater than 700 mg/L. Instances of these high strength events appear to be sporadic, but occur consistently enough to hinder the overall treatment process as previously mentioned in this report. Despite these events, the overall nutrient loading limit for Nitrogen and Phosphorous has not been exceeded. This fact reinforces the idea that the high strength events are inconsistent and not representative of the normal wastewater composition. Selected design data for each Facility has been summarized in Table 8 for comparison. These highlight the extreme need for additional treatment capacity outside of hydraulic requirements. Overall, both Facilities perform reasonably well given the influent conditions, achieving average removals of 98% for BOD_5 and TSS.

Table 8. Facility Design Data

	Charles Town	Tuscawilla
Average Daily Flow (ADF)	1.2 MG	0.5 MG
Peak Daily Flow (PDF)	2.4 MG	1.625 MG
BOD_5 Concentration	400 mg/L	394 mg/L
BOD_5 Loading	4,003 lbs./day	1,641 lbs./day
Ammonia Concentration	40 mg/L	58 mg/L*
Ammonia Loading	400 lbs./day	240 lbs./day*

*Design of Tuscawilla was based on Total Kjeldahl Nitrogen (TKN) instead of Ammonia. Municipal wastewater typically has an Ammonia/TKN ratio between 60% and 70%, roughly the same design point as was used for the Charles Town Facility.

Comparing the 2017-2024 sampling data to previously completed studies in 2005-2007 by Black and Veatch reveal some discrepancies in the data set when it comes to organic loading. Typical domestic wastewater has BOD:TKN (Total Kejadal Nitrogen) ratios around 5 and BOD:TP (Total Phosphorous) ratios around 25. The 2005-2007 studies had resultant ratios of approximately 10 and 80, respectively. See Table 9 for a summary comparing these data sets. These unusual ratios could mean several things for the influent wastewater, but primarily indicate unusually high BOD compared to the organic loading of the waste stream. On the other hand, the influent BOD and TSS concentrations seems to have been drastically reduced since the 2007 timeframe while the TKN and Ammonia concentrations have increased. Ultimately, this variation in the data sets warrants a more extensive sampling program before any process design may be completed in order to have a full picture of the design data points.

Table 9. Annual Average Influent Data Summary

		Jun 2005 - May 2006	Jun 2006 - May 2007	2017	2018	2019	2020	2021	2022	2023	2024
Flow	(MGD)	1.07	1.12	1.248	1.687	1.622	1.479	1.014	1.342	0.999	1.283
BOD	(mg/L)	552	617	367.52	349.91	323.15	322.69	239.44	329.58	305.71	322.62
TSS	(mg/L)	458	519	279.47	256.98	227.98	232.92	218.2	226.94	213.35	220.42
TKN	(mg/L)	54.0	51.9	73.5	70.0	64.6	64.5	47.9	65.9	61.2	64.5
NH3–N	(mg/L)	33.0	34.6	44.1	42.0	38.8	38.7	28.7	39.6	36.7	38.7
TP	(mg/L)	7.3	7.3	14.7	14.0	12.9	12.9	9.6	13.2	12.2	12.9
BOD:TKN		*10.2*	*11.9*	*5.0*	*5.0*	*5.0*	*5.0*	*5.0*	*5.0*	*5.0*	*5.0*
BOD:TP		*75.6*	*84.5*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*

The effluent sampling results at Charles Town were trended to determine if there has been enough capacity at the plant to handle whatever the influent waste stream tends to be. Figure 13 and Figure 14 summarize these full results. The dotted lines indicate the effluent limits from the NPDES Permit. As can be seen, the Facility generally treats BOD to well below the permit limits regardless of what the influent concentration may be, generally achieving removal efficiencies above 95%. Effluent ammonia however is less consistent. Based on these two figures, it appears as though the Charles Town Facility has enough aeration capacity to handle the BOD, but not enough to fully oxidize the ammonia. The root cause of this oxygen limitation may simply be the intermittently high concentrations of BOD that are not always observed in the composite influent sampling.

Figure 13. Charles Town Effluent BOD Concentrations

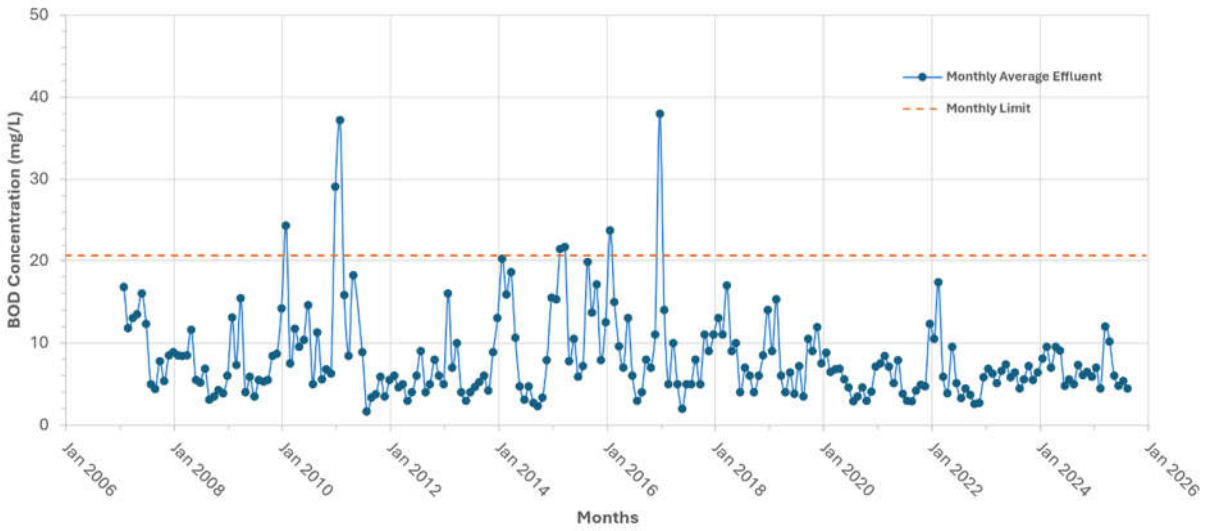
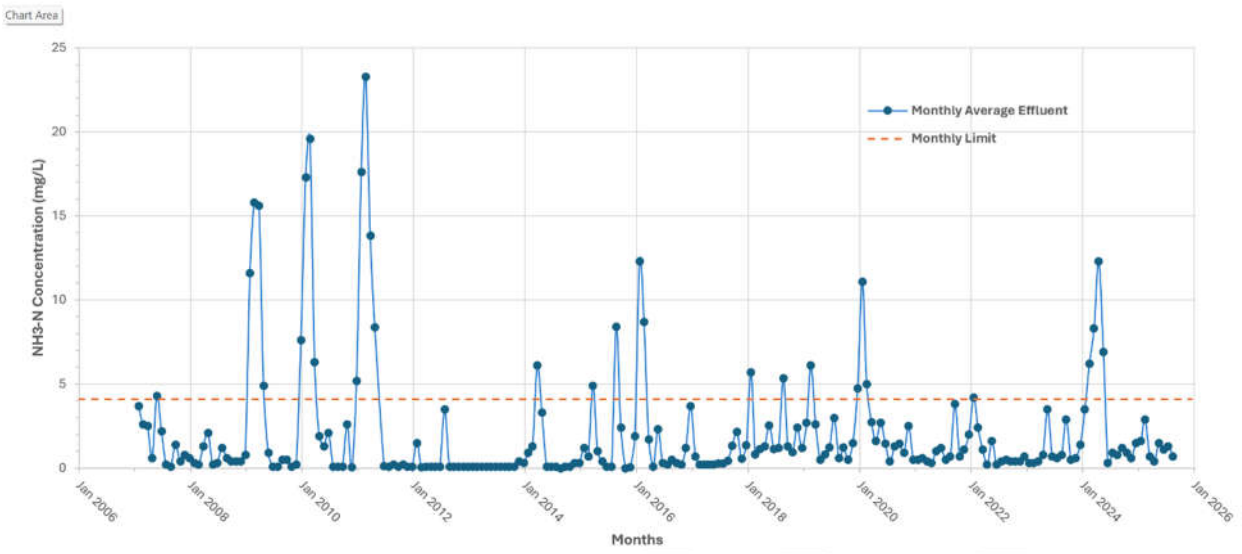


Figure 14. Charles Town Effluent Ammonia Concentrations



The primary reason for review of the past flow rates and loading is to guide selection of future treatment capacity. A 20-year projection of population growth was prepared with the associated estimates for EDUs, influent flows, and nutrient loadings to compare to the existing permit limits which are unlikely to change in the near term, but will certainly not increase. These projections as shown in Table 10 and Figure 15 shows a realistic need for a minimum of 5 MGD of total treatment capacity in the near term unless population growth slows significantly. The population projections in Table 10 assume a continued growth at the 8% for the next few years to match the last data point for Ranson and then decreasing over time. The growth rate of Jefferson County is assumed to be half that of Charles Town and Ranson. The loading projections associated with this expansion indicate that the existing permit limitations are attainable, but with high removal efficiencies of 95%. This reinforces the need for Biological Nutrient Removal to be included in long-term planning in anticipation of future changes to the permit limits.

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Table 10. 20-Year Population Projection

Year	Charles Town		Ranson		Jefferson County		
	Population	% Growth	Population	% Growth	Population	Estimated Population Served	% Growth
1950					29,210		
1960					31,294	3,129	7%
1970					35,482	3,548	13%
1980	2920.00	-	1800.00		38,839	3883.90	9%
1990	3500.00	20%	2200.00	22%	42,190	4219.00	9%
2000	4200.00	20%	3000.00	36%	45,287	4528.70	7%
2010	5100.00	21%	4200.00	40%	53,498	5349.80	18%
2020	6526.00	28%	5435.00	29%	57,785	5778.50	8%
2023	7672.00	18%	5854.00	8%	59,787	5978.70	3%
2025	8285.76	8%	6322.32	8%	62,178	6217.85	4%
2026	8948.62	8%	6828.11	8%	64,666	6466.56	4%
2027	9664.51	8%	7374.35	8%	67,252	6725.22	4%
2028	10437.67	8%	7964.30	8%	69,942	6994.23	4%
2029*	10959.55	5%	8362.52	5%	71,691	7169.09	3%
2030	11507.53	5%	8780.64	5%	73,483	7348.32	3%
2031	12082.91	5%	9219.68	5%	75,320	7532.02	3%
2032	12687.05	5%	9680.66	5%	77,203	7720.32	3%
2033	13321.41	5%	10164.69	5%	79,133	7913.33	3%
2034	13587.84	2%	10367.99	2%	79,925	7992.47	1%
2035	13859.59	2%	10575.35	2%	80,724	8072.39	1%
2036	14136.78	2%	10786.85	2%	81,531	8153.11	1%
2037	14419.52	2%	11002.59	2%	82,346	8234.65	1%
2038	14707.91	2%	11222.64	2%	83,170	8316.99	1%
2039	15002.07	2%	11447.09	2%	84,002	8400.16	1%
2040	15302.11	2%	11676.04	2%	84,842	8484.16	1%
2041	15608.15	2%	11909.56	2%	85,690	8569.01	1%
2042	15920.32	2%	12147.75	2%	86,547	8654.70	1%
2043	16238.72	2%	12390.70	2%	87,412	8741.24	1%
2044	16563.50	2%	12638.52	2%	88,287	8828.66	1%
2045	16894.77	2%	12891.29	2%	89,169	8916.94	1%
2046	17232.66	2%	13149.11	2%	90,061	9006.11	1%
2047	17577.31	2%	13412.10	2%	90,962	9096.17	1%
2048	17928.86	2%	13680.34	2%	91,871	9187.13	1%
2049	18287.44	2%	13953.94	2%	92,790	9279.01	1%

*Realiastic timeframe for a new/upgraded facility to be constructed.

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Figure 15. 25-Year Flow & Loading Projection

Year	EDUs Served	Daily Usage, MGD*	Peak Flow, MGD	Pounds Discharged at 95% Removal	
				Nitrogen**	Phosphorous***
1980	2,868	0.60	1.51	5,958	1,100
1990	3,306	0.69	1.74	6,869	1,268
2000	3,910	0.82	2.05	8,123	1,500
2010	4,883	1.03	2.56	10,145	1,873
2020	5,913	1.24	3.10	12,285	2,268
2023	6,502	1.37	3.41	13,508	2,494
2025	6,942	1.46	3.64	14,423	2,663
2026	7,414	1.56	3.89	15,404	2,844
2027	7,921	1.66	4.16	16,457	3,038
2028	8,465	1.78	4.44	17,588	3,247
2029*	8,830	1.85	4.64	18,346	3,387
2030	9,212	1.93	4.84	19,139	3,533
2031	9,612	2.02	5.05	19,969	3,687
2032	10,029	2.11	5.27	20,837	3,847
2033	10,466	2.20	5.49	21,745	4,014
2034	10,649	2.24	5.59	22,125	4,085
2035	10,836	2.28	5.69	22,512	4,156
2036	11,026	2.32	5.79	22,907	4,229
2037	11,219	2.36	5.89	23,308	4,303
2038	11,416	2.40	5.99	23,718	4,379
2039	11,616	2.44	6.10	24,134	4,456
2040	11,821	2.48	6.21	24,559	4,534
2041	12,029	2.53	6.32	24,991	4,614
2042	12,241	2.57	6.43	25,432	4,695
2043	12,457	2.62	6.54	25,880	4,778
2044	12,677	2.66	6.66	26,337	4,862
2045	12,901	2.71	6.77	26,803	4,948
2046	13,129	2.76	6.89	27,277	5,036
2047	13,362	2.81	7.01	27,761	5,125
2048	13,599	2.86	7.14	28,253	5,216
2049	13,840	2.91	7.27	28,754	5,308

*****Daily Usage based on EDU/population projections times 2.5 peaking factor.

******Total Nitrogen Loading per the NPDES Permit is limited to 42,855 pounds per year from both Facilities.

*** Total Phosphorous Loading per the NPDES Permit is limited to 5,367 pounds per year from both Facilities.

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SECTION 5: EVALUATION OF TREATMENT ALTERNATIVES

The Charles Town Utility Board system is in a unique position of extremely rapid growth coupled with aging infrastructure. Consideration must be given to balance recent expenditures versus long term benefits of other alternatives. The main criteria for evaluation of alternatives will be to provide sufficient capacity for the growing customer base while improving treatability to the greatest extent possible. Alternatives must also consider the timeframes associated with gaining additional capacity compared to the current growth and ultimately the economic burden associated with them. The treatment system has additional complexity with the two (2) treatment Facilities. As a result, the treatment alternative evaluations have been split into two sections with individual alternatives for the most flexibility in final decision making.

The three (3) treatment plant upgrade alternatives evaluated for the Charles Town Facility are as follows:

Option 1.1 - No Action/Maintain Existing Systems Alternative,
Option 2.1 – Expanding treatment capacity at the existing site,
Option 3.1 – Construction of Treatment Facility at a new Site.

The three (3) treatment plant upgrade alternatives evaluated for the Tuscawilla Facility are as follows:

Option 2.1 – No Action/Maintain Existing Systems Alternative,
Option 2.2 – Convert Facility to Pump Station,
Option 2.3 – Expanding/improving treatment capacity.

Within Option 3 for each Facility exists several sub-options for final selection of treatment systems. These sub-options will be explored individually at a high level. Cost estimate ranges will be given for each of these sub-options for direction, but the primary focus will be in comparison to the other main Options. Final specifics should be explored in further detail if the respective Option is selected.

5.1 Charles Town Alternatives

5.1.1 No Action/Maintain Existing Systems Alternative

The No Action Alternative is not realistically possible in CTUB's current position of expansion. Consideration could be given to performing No Action at Charles Town while expanding the Tuscawilla Facility, but even this would require significant expenditures to maintain the existing system at its current capacity. As previously mentioned, the Charles Town Facility recently underwent a major Renewal and Replacement Project. These improvements were desperately needed to continue to treat the existing flows and replace aging equipment, specifically the ICEAS System Control Panel and the Belt Press. While these were still in operation at the time of the upgrade, it was a question of when they would eventually fail. Remaining major capital projects that would be required to consider Option 1.1 are summarized in Table 11. This option does not address future loadings or more stringent discharge limitations for nutrients which would have to be considered separately.

Table 11. Charles Town WWTF Capital Projects Cost Estimates

Description	Estimated Cost
Plant Effluent Pump Replacement with VFDs	$400,000
Blower replacements (2 Blowers)	$600,000
Chemical feed pump & tank replacements	$75,000
Denitrification rehab	$250,000

5.1.2 Expanding treatment capacity at the existing site

Capacity expansion at the existing site could be achieved in a few different ways. The most straightforward method would be addition of a fourth treatment tank as well as additional facilities for sludge processing. Adding a fourth treatment tank has the advantage of utilizing much of the existing equipment at the site including the control panel, blowers, etc. However, this option only expands the normal treatment capacity by 0.6 MGD to a total of 2.35 MGD with no system redundancy other than the minimal amount that already exists. The estimated cost to perform this expansion is $2,500,000, see Appendix B for a preliminary site plan of this option. Similar to Option 1.1, this process would also not have the ability for nutrient removal, which may become an issue with increased loading or more stringent permit limitations.

In order to increase the treatment capacity, a significant plant modification would be required. The area adjacent to the existing Facility is already owned by CTUB and could be utilized for this expansion. Changing the treatment technology from the ICEAS SBR System to another technology would provide enhanced treatment and greater operational flexibility within similar footprints. Many options exist that are capable of treating to Nutrient Removal Technology (NRT) limits. For the purpose of this report, the evaluation considered two (2) biological nutrient removal (BNR) processes that could be adaptable to all of the various conditions of the CTUB System; such as the 5-Stage Bardenpho and the Virginia Initiative Process (VIP). Both processes offer nutrient removal technology; our analysis primarily focused on the 5-Stage Bardenpho, which was merely a preference based on our past experience with nutrient removal projects. Figure 16 depicts an example process flow diagram for the 5-Stage Bardenpho process. Previous designs implemented by GD&F have been capable of performing a modified version of both of these treatment processes for the greatest possible flexibility.

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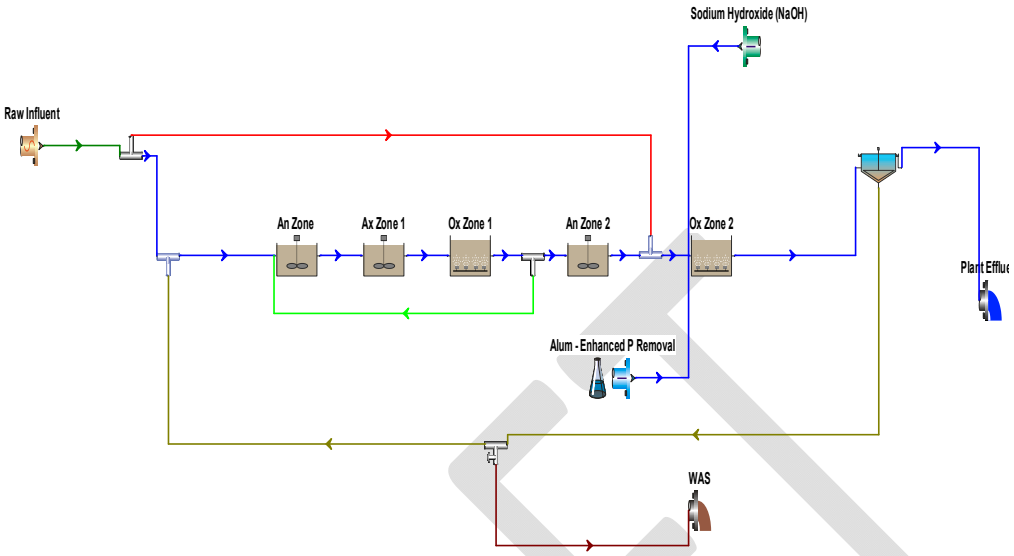
Figure 16. Example 5-Stage Bardenpho Process Flow Schematic



This type of system offers significant advantages for wastewater treatment, particularly in managing wet weather flows. Unlike conventional plug-flow systems, step feed introduces influent at multiple points along the aeration basin, which helps distribute the organic load more evenly. During periods of high storm flow and heavy usage, this design prevents overloading at the head of the basin and maintains stable dissolved oxygen levels throughout the reactors. By reducing peak oxygen demand and improving mixing, step feed systems can handle sudden surges in flow without compromising treatment efficiency, making them highly resilient under variable conditions.

In addition to flow management, step feed aeration is highly effective for biological nutrient removal (BNR). The multiple feed points create zones with varying substrate concentrations, which promote both nitrification and denitrification within the same basin. Early zones can favor nitrification due to lower organic competition, while later zones maintain enough carbon for denitrification, reducing the need for external carbon sources. This flexibility allows operators to optimize nitrogen and phosphorus removal while minimizing energy costs. An example process flow schematic from a similar Facility recently designed by GD&F and currently in service is included in Appendix E.

This modification would drastically change the existing operation of the Facility. It would also include secondary clarification and full treatment redundancy at ±5 MGD for a full peak treatment capacity of ±10 MGD. Alternatively, the system could be designed for four (4) trains at ±2.5 MGD for added treatment flexibility. CTUB owns the adjacent parcel to the existing Facility site and there is adequate space to leave room for additional expansion as well. Much of the existing equipment and structures could be demolished for a new headworks system, administrative building, dewatering facilities, etc. This option would require phased construction, but would be capable of transitioning to the new process relatively easily by diverting flow while maintaining existing operations. Fully redundant processes would be implemented to improve treatability as well as provide

ease in operations during cleaning and maintenance operations. The estimated cost to construct the BNR Process System is $12,000,000 to $15,000,000 , see Appendix B for a preliminary site plan of this option. Additional capital costs to expand other areas of the Facility to match the capacity of the biological treatment would also be required. The sum total capital cost to construct these supporting operations at the existing location is $23,095,000. Some example photographs of similar systems are included for reference. An expansion of this scope would have the added benefit of drastically decreasing maintenance costs for a period of time after construction as nearly all the equipment would be replaced.

Figure 17. Redundant Mechanically Cleaned Fine Bar Screens



Figure 18. Redundant Vortex Grit Separation Units



Figure 19. Redundant Biological Nutrient Removal Reactors



Figure 20. Final Clarifier Example



Figure 21. Redundant UV System and Structure



Either option would include expanded digestion space. At the current rate of sludge production, the existing facilities do not have adequate detention time. Addition of one (1) digester of equal capacity to the existing would allow for increased digestion time and allow the Operators to stagger the systems during decanting operations. The estimated cost to build one (1) digester along with the required provisions is $1,250,000,

construction of a second digester would be roughly twice that amount with minimal savings if the two (2) were built at the same time. The newly upgraded centrifuge will be able to be reused within the existing building or relocated to a new building if necessary. Costs for construction of a new Dewatering Building do not consider purchase of a new or redundant centrifuge. A new Dewatering Building would allow for ease of access for dumping and temporary sludge storage that is severely lacking at the existing site due to spatial constraints.

Although there is adequate space at the adjacent property, the entire location sits within the existing floodplain. Based on the FEMA Flood map 54037C0138E, almost the entire site is located with Zone AE, Special Flood Hazard Area with an established Base Flood Elevation (BFE). One of the established BFE sections runs directly through the site and is shown in Figure 22, the full Flood map is included in Appendix C. As shown here, the floodplain extends throughout the entire available area. The existing Facility has a low flood wall that was constructed as part of the original plant. The flood wall is set at the BFE of 470' and wraps around the digester on the lower portion of the site. In order to expand into the adjacent areas, the floodwall would likely need extended, which will require significant permitting similar to Option 1.3. The investigation, modeling, and permitting requirements are discussed further in the next section. All of these actions would be required to perform this alternative as the proposed process would likely require extension of the existing flood wall. An adjacent parcel to this site is currently for sale and acquisition of the parcel is recommended to assist in site development now as well as providing additional room for expansion in the future.

Figure 22. Existing Charles Town Site Base Flood Elevation



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5.1.3 Construction of Treatment Facility at a New Site

Improvements to the existing Charles Town Facility to account for the anticipated growth in the near future are possible on the existing site. However, the current layout of the Collection System requires an unusually large amount of pump stations for a system of this size. The proportion of pump stations compared to gravity lines results in extremely long residence times and increased operations & maintenance costs. Treatability also suffers as a result of septicity. These issues continue to compound as more pump stations are required with system expansion. For these reasons, an alternative site for a single treatment plant was considered. The ideal site for a new, centralized wastewater system would meet the following requirements:

- Near the lowest point in the watershed to maximize gravity collection system,
- Isolated location away from residents,
- Located such that the existing system could be used to the greatest capacity possible,
- Ease of access for construction and long-term operation,
- Discharging to Evitt's Creek to maintain existing permit limitations or the Shenandoah River for potentially more relaxed permit conditions, and
- Sufficient space for the proposed facility as well as future expansion.

The search for an alternative site began by searching properties downstream of the existing Facility and rating them based on these requirements. There are several developments and existing homes on the northern side of WV-25 until Evitts Creek passes under it in Clips Mill. At this point, there is significantly more open space. A large amount of property in this area was recently developed with a solar farm and the remainder is mostly farm field. There are two (2) properties in this area that hold promise, indicated in Figure 23 and Appendix D. One is privately owned and the other is currently owned by the WVDOH. Of these two, the WVDOH property is more attractive for use as a future WWTF site. There is existing three-phase power, around minimal existing homes, located on Evitts Creek just before it joins with the Shenandoah River, easily accessible from WV-115, and has sufficient space for a facility of this proposed size.

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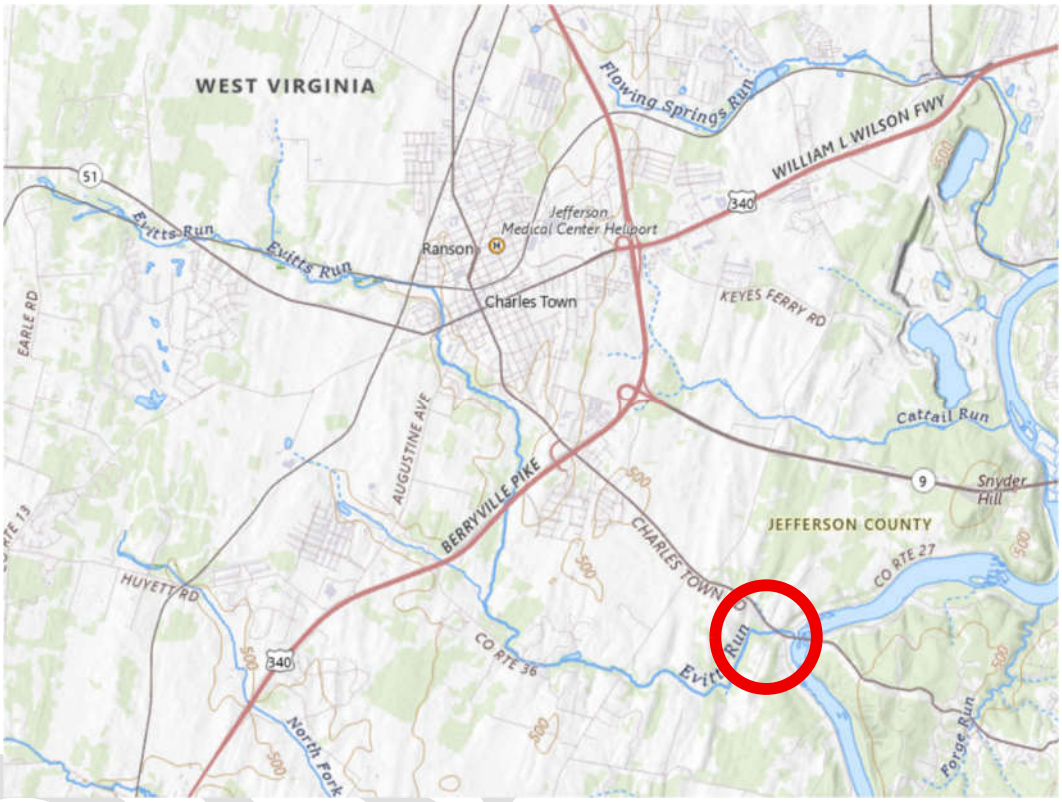
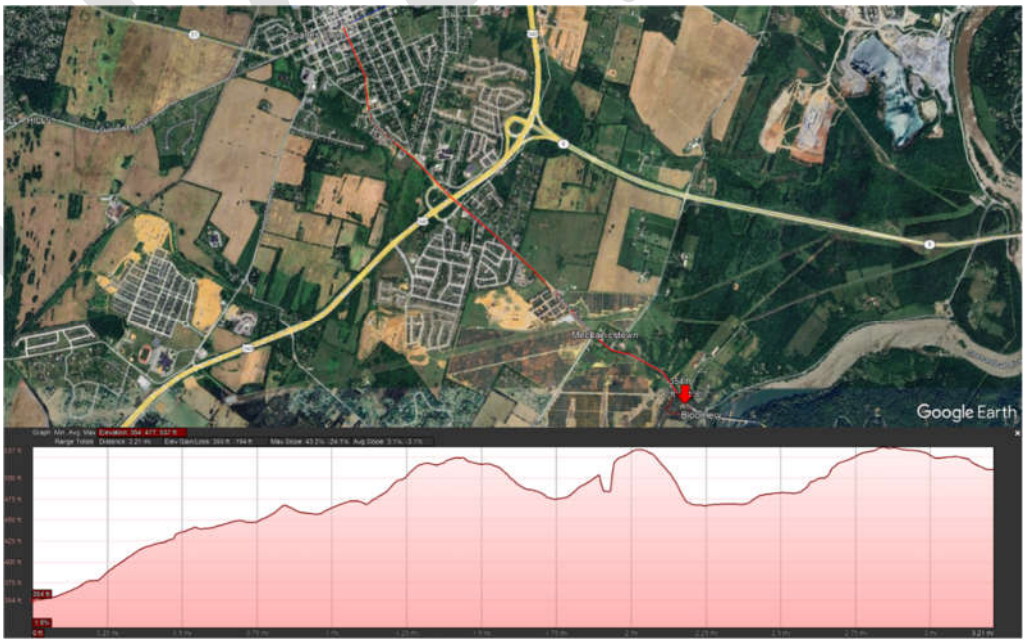
Figure 23. Potential WWTF Location



The primary drawbacks for this location are the building requirements associated with the proximity to Evitt's Creek and the floodplain. Based on the FEMA Flood map 54037C0139E, almost the entire site is located with Zone A, Special Flood Hazard Area without an established Base Flood Elevation (BFE). However, the adjacent Shenandoah River has had BFE established from previous studies. The nearest cross-sections note BFEs between 359' and 358', although these do not necessarily translate to the site in question, we compared them to the existing grade available from the available topographic data for this desktop review. The lowest edge of the site has an elevation of approximately 340' and slopes upward to the northwestern edge of the site to approximately 400'. The majority of the site rests at an elevation of around 360'-370'. The spatial requirements for this site would be more or less identical to the expansion options at the existing site. A preliminary site layout with these approximate dimensions was overlaid over the existing site and also included in Appendix B. Refer to the previous section for additional detail on proposed treatment technologies. The cost to construct this option in this location would be near the same as constructing on the existing site. Costs required to prepare a completely new site would largely be offset by those required for phasing, demolition, and repurposing of the existing site.

This site holds great potential for a new WWTF location due to its location of WV-115. A new, main gravity interceptor could be constructed with only one (1) major pump station before continuing on to the heart of the cities of Charles Town and Ranson. A preliminary interceptor plan with associated elevation profile is included in Figure 24. The existing treatment facilities could continue to operate throughout construction and startup of the new system. Flow could be directed away from the existing Facility in a controlled manner for startup and even directed back to the existing Facility when required for debugging purposes. After the new Facility is operating correctly, flow could be directed straight to the new gravity interceptor and the existing abandoned entirely. As time progresses, individual pump stations could potentially be taken offline and re-routed as gravity to the deeper interceptor. A drastic decrease in operating cost would be achieved for pump stations required to remain as a result of decreased head and minimized length of forcemain. For example, Flowing Springs is one of the system's largest pump stations and operates under approximately 100 feet of static head and 2.5 miles of forcemain. A new gravity interceptor would not be able to eliminate this pump station, but would reduce the length of forcemain to 0.3 miles and reduce the head by 20%. The cost associated with construction of the main gravity interceptor to the WVDOH property is difficult to estimate because it would largely depend on the scope of replacement. At a minimum, a large diameter line would be required from the Facility to WV-340 and a large pump station to convey all the flow to the high point of WV-115 just north of the existing Water Treatment Facility. The estimated cost for 1 ½ miles of large diameter interceptor is $3,000,000. The estimated cost for the associated pump station is $3,500,000.

Figure 24. New WWTF Preliminary Interceptor Plan and Profile



Several additional actions must be performed in order to properly investigate this site fully prior to committing. The floodplain as is currently mapped is the primary concern. A

full site survey with Hydraulic and Hydrogeologic Study to establish actual floodplain limits must be completed. If the results of this analysis indicate the Facility could be developed on the site in theory, the next step is to approach the County and Zoning Boards to establish working around requirements for Riparian Buffer, Conservation Areas, etc. Assuming there is positive response to these meetings, a Letter of Map Revision (LOMAR) would be submitted to the Federal Emergency Management Agency (FEMA) to establish the floodplain elevations established in the H&H Study. A summary of these required steps, their associated costs, and anticipated timelines are included in Table 12. As mentioned in the previous section, the existing site also is located within the floodplain. However, the site already has established BFEs. There is the possibility that this new location's floodplain impacts are minimal.

Table 12. Alternative Site Evaluation Costs & Timelines

	Estimated Cost	Estimated Duration
Site Survey, Basemapping	$6,500	1 Month
H&H Study	$30,000	4 Months
Pre-Application with County/Zoning Boards	$5,000	1 Month
LOMAR	$25,000	2 Years

5.2 Tuscawilla Alternatives

5.2.1 No Action/Maintain Existing Systems Alternative

Similar to Option 1.1 for the Charles Town Facility, Tuscawilla is not capable of performing a true No Action Alternative as it will require relatively significant expenditures in the near term to continue to operate at the same capacity. The largest of which is membrane replacement. All of these costs would do nothing to advance the capability of the existing systems. However, the most significant of these costs have been summarized in Table 13 for full consideration in decision making.

Table 13. Tuscawilla WWTF Capital Projects Cost Estimates

Description	**Estimated Cost**
Influent Pump Check Valve Replacement	$20,000
Headworks Screening Upgrades/Replacement	$750,000
Lining & Enclosure of Lagoon	$400,000
Fine Bubble Diffusers for Oxic Tanks	$75,000
Aeration Blower Replacement	$120,000
MLSS Flow Meter & Plug Valve Installation	$25,000
BNR Online Instrumentation	$120,000
MBR Cleaning Improvements	$140,000
0.25 MGD PVDF Membrane Replacement	$500,000
Chemical Feed Station Upgrades	$25,000
Redundant UV Disinfection System	$150,000
Total Estimated Cost	$2,325,000

5.2.2 Convert Facility to Pump Station

While the Tuscawilla Facility does represent a significant portion of the daily treated flow, consideration should be given to total abandonment of treatment and conversion to a pump station. The advantages to this approach are consolidation of treatment and elimination of duplicative operating costs. Tuscawilla treats around 10-15% of the overall waste generated by the system, but represents more than 30% of the operating cost between the two Facilities on average. MBR systems are inherently more expensive to operate than the conventional system at Charles Town because they produce a much higher quality effluent. The Facility generally discharges to the adjacent golf course, which requires this higher quality effluent. However, if the waste generated in this location was conveyed to a centralized location, this level of treatment would not be necessary. Some level of operating cost would remain with the pump station considered under this option, but it would be minimal compared to current costs. The estimated cost for conversion of the site to a dedicated pump station and decommissioning the rest of the Facility is $2,500,000. This alternative is only viable if the Charles Town Facility is expanded to account for the loss of treatment capacity at Tuscawilla.

5.2.3 Expanding/improving treatment capacity

As previously mentioned, the Tuscawilla Facility was originally designed with a hydraulic capacity of 0.5 MGD and expandable to add additional treatment trains. Given the current configuration, additional membrane modules could be installed to increase the throughput to 0.5 MGD. Additionally, several other related upgrades would be required in order to increase they process capacity to match hydraulic capacity. If this alternative is selected, these upgrades could be completed for a similar cost as those summarized in Table 13. The major cost in expanding the capacity is the purchase of double the membrane modules. Pursuing this alternative has the added benefit of reducing the load to the Charles Town Facility very quickly.

5.3 Permit Requirements

Regardless of the alternative selected, permits from WV Department of Environmental Protection (NPDES Stormwater and Industrial) and Bureau of Public Health will be required for the major plant renovations on existing sites. If an alternative site is selected, a Department of Highways Permit for construction/facility access will be needed. Additionally, the LOMAR required for development of the previously investigated site would need in place prior to any groundbreaking.

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SECTION 6: CONCLUSIONS AND RECOMMENDATIONS

Our opinion is that the largest long-term difficulty in treatment for the Charles Town Sewer System is the explosive growth in the area, numerous pump stations and resultant excessive system detention times. These issues compound with others when they reach the Treatment Facilities which are very quickly running out of capacity. Based on the current treatment availability and planned development, the treatment system will be out of capacity within the next two years. The ideal proposed solution must provide increased capacity to meet current demands while allowing for future growth, address existing aging infrastructure, and provide the long-term, cost-effective solution to wastewater treatment for the area. In order to balance the growth rate of the system with realistic implementation timelines, we are recommending short- and long-term solutions.

In the short term, CTUB will require increased capacity to match current development. Design, permitting, and construction of a large-scale expansion of Charles Town or a new Facility will likely take 5 years, longer than the time available before running out of capacity. Expansion of the Tuscawilla Facility from 0.25 MGD to 0.5 MGD will provide additional treatment capacity for nearly 2,400 EDUs on top of the existing remaining capacity in a relatively short timeframe. This expansion would provide enough capacity to meet the developments currently under construction and allow diversion from the Charles Town Facility. There are several upgrades previously summarized in Table 13 that would be recommended in order to complete this option. If the long-term plan for Tuscawilla is eventual decommissioning to a pump station, some of these upgrades could be eliminated. The estimated cost range to bring Tuscawilla to 0.5 MGD is $2,000,000-$3,000,000.

The long-term plan must be consideration of major expansion of the existing Charles Town Facility or a new construction at a new location. Assuming the proposed treatment technology is the same, the major differences in capital cost between the two options will be construction of the main gravity line along WV-115 or demolition/staging of construction around the current site. There are some comparatively minor capital cost savings from reuse of the existing equipment at the current site; however, most of the existing site will need completely reworked for the increased flow expected by centralizing treatment. These options have been compared in Table 14. The environmental impacts for each option are largely similar since both locations are located in existing floodplains. The alternative site proposed in Section 5 is currently undeveloped, therefore additional evaluation for environmental impacts would be necessary, but are not expected to be a significant issue in development because of the surrounding locations. The present worth analysis presented here assumed a useful lifespan of 30 years, an average interest rate of 2.0%, and straight-line depreciation over the useful life. The demolition costs of the existing facility are likely to be significantly less expensive assuming it has been taken completely offline after startup of the new facility.

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Table 14. Charles Town 5MGD Expansion Present Worth Analysis

Description	Existing Location	New Location
Upfront Permitting/Floodplain Investigation	$ 75,000	$ 75,000
Capital Construction Cost	$ 33,500,000	$ 39,500,000
Sitework	$ 1,000,000	$ 2,000,000
Existing Demo/Modification/Staging	$ 2,500,000	$ 500,000
Headworks Building	$ 2,750,000	$ 2,750,000
BNR Process System (2 Trains @ 5MGD Each)	$ 14,500,000	$ 15,000,000
Denitrification Filter Rehab		$ -
Clarifiers (3)	$ 6,000,000	$ 6,000,000
Digesters (2)	$ 2,500,000	$ 2,500,000
Dewatering Building/Equipment	$ 1,750,000	$ 1,750,000
UV Building	$ 2,000,000	$ 2,000,000
Operations Building	$ 500,000	$ 500,000
Main Interceptor	$ -	$ 3,000,000
WV-340 Pump Station	$ -	$ 3,500,000
Soft Costs	$ 4,020,000	$ 4,740,000
Total Estimated Captial Costs	**$ 37,595,000**	**$ 44,315,000**
Estimated Annual O&M Costs	$ 550,000	$ 400,000
Present Worth of O&M	**$ 8,993,288**	**$ 6,540,573**
Plant Salvage Value (20 Years)	$ 6,265,833	$ 14,771,667
Plant Salvage Value Present Worth (20 Years)	**($4,216,726.21)**	**($9,940,908.21)**
Net Present Value (NPV)	**$ 42,371,562.13**	**$ 40,914,665.13**

What these evaluations do not consider are costs associated with collection system improvements for replacement and increasing capacity. Regardless of the treatment options pursued, the growth in the area will require significant improvements to the collection system. As a result, we considered these costs to be separate from treatment and did not include them in the comparisons in Table 14. An entirely separate evaluation should be performed during upgrades of the major system pump stations to determine if upstream stations could be eliminated during such projects. The long-term cost savings from elimination of pump stations and increased ease in treatment would be significant.

In summary, we recommend a two-fold approach: increasing the capacity of Tuscawilla to 0.5 MGD by replacing the existing membrane and adding another coupled with beginning the design of a centralized Facility at either the existing sit or a new location downstream of the existing Charles Town Plant. Tuscawilla may continue to be operated for the length of its useful life and re-evaluated when additional capital expenditures would be needed. In our opinion, this will provide adequate treatment capability in the short term and provide long term capacity at the most cost-effective means possible. An intensive influent sampling effort is recommended to begin design operations coupled with site investigations as previously mentioned. Final selection of treatment technologies may be further explored during design operations to optimize based on the influent sampling study results.

DRAFT

REFERENCES

1. **USGS.** Waterdata for USGS-391556077381600. [Online] United States Geological Survey. https://waterdata.usgs.gov/monitoring-location/USGS-391556077381600/#showMedian=true&startDT=2017-01-01&endDT=2024-09-01&dataTypeId=continuous-00045-0&showFieldMeasurements=true.

2. **Bureau, U.S. Census.** QuickFacts, Charles Town/Jefferson Co. *U.S. Census Bureau.* [Online] 2020, 2024.

3. **Neilsberg.** Charles Town/Jefferson County, WV. *Nielsberg Research.* [Online] 2023, 2024.

5. **EPA, US.** *Guide for Estimating Infiltration and Inflow.* s.l. : EPA Water Infrastructure Outreach, 2014.

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APPENDIX A

CURRENT NPDES PERMIT

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APPENDIX B

PRELIMINARY SITE PLANS

DRAFT



GRAPHIC SCALE

−40 0 20 40 80 160

1 inch = 40 ft.

EXPANDED WWTP SITE - 2.35 MGD

WASTEWATER TREATMENT AND COLLECTION SYSTEM

CHARLES TOWN UTILITY BOARD

JEFFERSON COUNTY, WEST VIRGINIA

DATE: 6/6/25	JOB: 24046	SCALE: NO SCALE
FILE: EXP 2.35MGD	DRAWN BY: BRP	CHECKED BY: ---

G:\24046\CONCEPT\EXP 2.35MGD.DWG



GRAPHIC SCALE

−40 0 20 40 80 160

1 inch = 40 ft.

EXPANDED WWTP SITE - 5 MGD

WASTEWATER TREATMENT AND COLLECTION SYSTEM

CHARLES TOWN UTILITY BOARD

JEFFERSON COUNTY, WEST VIRGINIA

DATE: 6/6/25	JOB: 24046	SCALE: NO SCALE
FILE: EXP 5 MGD	DRAWN BY: BRP	CHECKED BY: ---

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CHARLES TOWN ROAD (WV ROUTE 115)

N

INFLUENT PUMP STATION

HEADWORKS BUILDING

OPS BUILDING

UV BUILDING

REACTORS

CLARIFIER

CLARIFIER

CLARIFIER

DEWATERING BUILDING

DIGESTER

DIGESTER

EVITTS CREEK

HIGHLAND FARM LANE

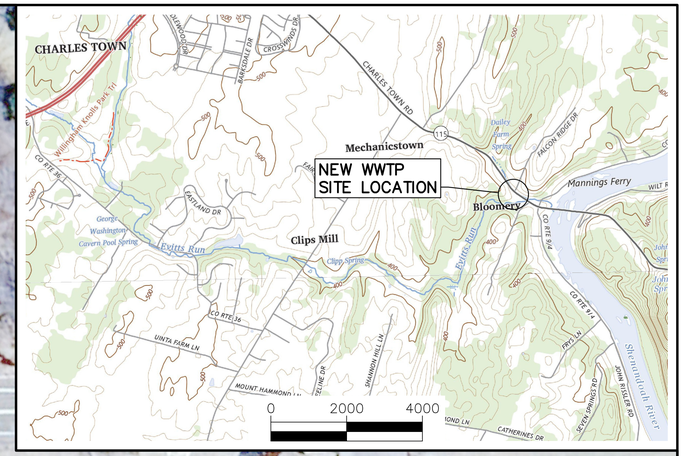
STONE JUSTIN & ABIGAIL H
02 19004000000000
DEED BK/PG – 1173/144

WV DOH
02 19003900000000
DEED BK/PG – 1255/711

HIGHLAND FARM HOLDINGS, LLC.
02 19003800000000
DEED BK/PG – 1122/71

HIGHLAND FARM HOLDINGS, LLC.
02 19004100000000
DEED BK/PG – 1122/71

HIGHLAND FARM HOLDINGS, LLC.
02 19003800000000
DEED BK/PG – 1122/71



GRAPHIC SCALE

−40 0 20 40 80 160

1 inch = 40 ft.

NEW WWTP SITE - 5 MGD

WASTEWATER TREATMENT AND COLLECTION SYSTEM

CHARLES TOWN UTILITY BOARD

JEFFERSON COUNTY, WEST VIRGINIA

DATE: 6/6/25	JOB: 24046	SCALE: NO SCALE
FILE: NEW 5 MGD	DRAWN BY: BRP	CHECKED BY: –––

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APPENDIX C

FLOODPLAIN MAPPING

DRAFT

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

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Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

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Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

Spatial Reference System Division
National Geodetic Survey, NOAA
Silver Spring Metro Center
1315 East-West Highway
Silver Spring, Maryland 20910
(301) 713-3191

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov/.

BASE MAP SOURCE: Digital data was obtained from Jefferson County, the West Virginia Statewide Addressing and Mapping Board (WV SAMB), and the West Virginia Dept. of Environmental Protection (WV DEP). Corporate boundaries and road names were obtained from Jefferson County. The 1:4800 scale 2003 orthophoto base map imagery was obtained from the WV SAMB, as was the orthophoto based hydrographic vector data. County boundaries were digitized by the WV DEP from U.S. Geological Survey 1:24000 scale topographic map digital raster graphics (DRGs).

Based on the above mentioned digital orthophotographs, this map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map.

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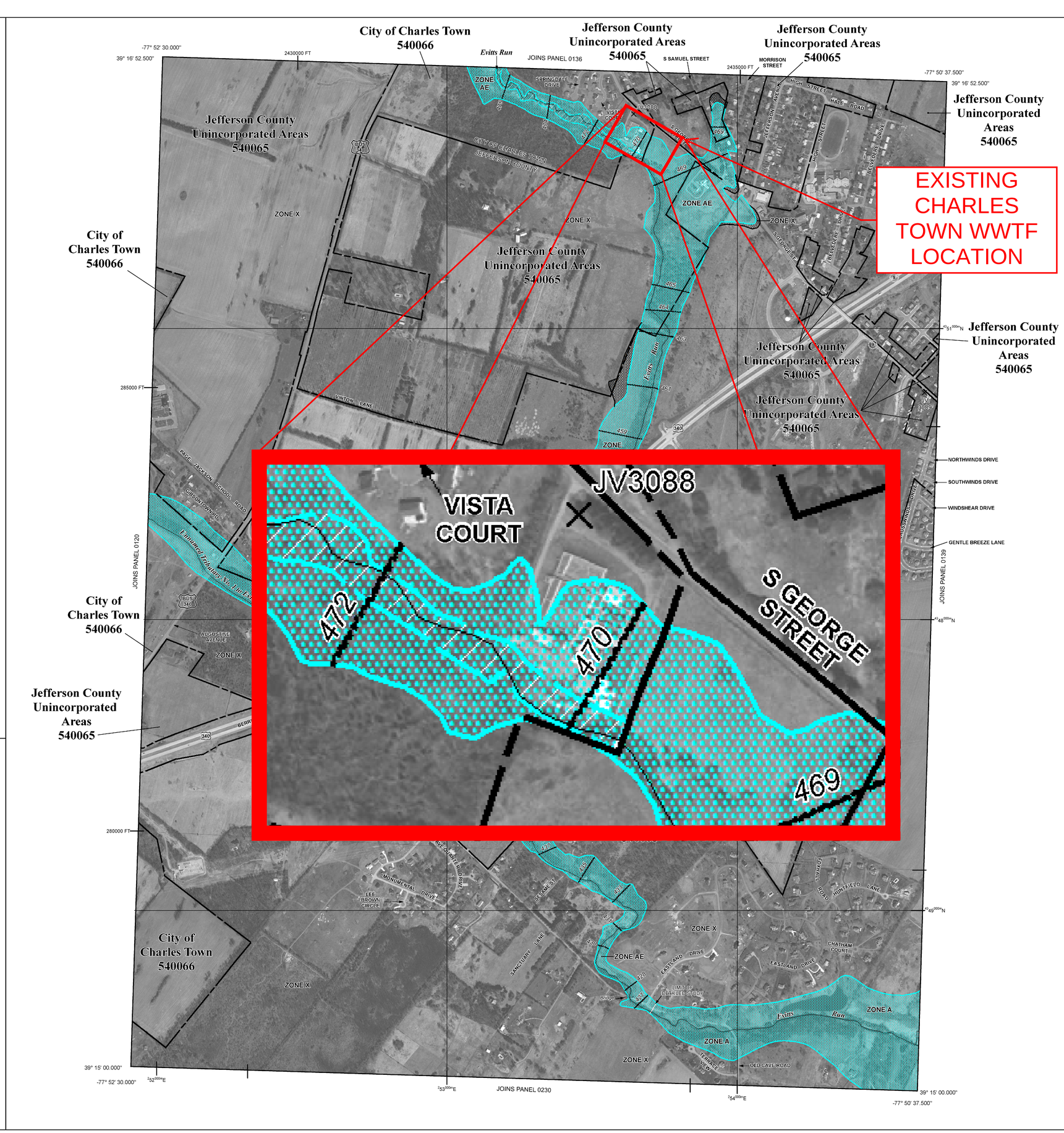

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** — No Base Flood Elevations determined.
- **ZONE AE** — Base Flood Elevations determined.
- **ZONE AH** — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** — Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAS)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL. 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4276000 M — 1000-meter Universal Transverse Mercator grid values, zone 18
- 600000 FT — 5000-foot grid ticks: West Virginia State Plane coordinate system (FIPSZONE 4701), Lambert Conformal Conic projection
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- ● M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
DECEMBER 18, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0138E

FIRM
FLOOD INSURANCE RATE MAP

JEFFERSON COUNTY, WEST VIRGINIA
AND INCORPORATED AREAS

PANEL 138 OF 245
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CHARLES TOWN, CITY OF	540066	0138	E
JEFFERSON COUNTY	540065	0138	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
54037C0138E

EFFECTIVE DATE
DECEMBER 18, 2009

Federal Emergency Management Agency

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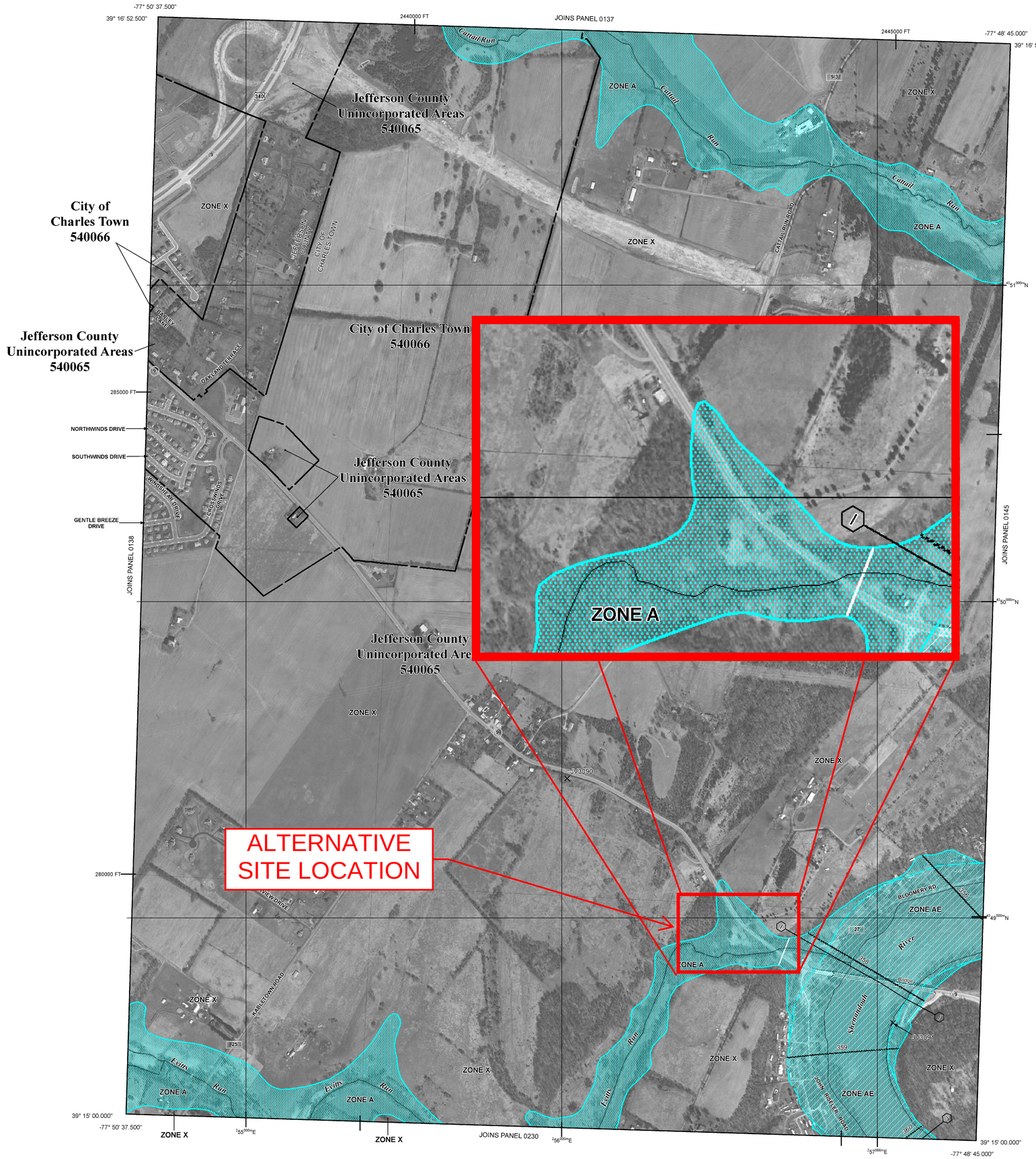

LEGEND

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OTHER FLOOD AREAS

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	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
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● M1.5	River Mile

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EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP

DECEMBER 18, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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150 0 150 300 METERS

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0139E

FIRM
FLOOD INSURANCE RATE MAP

JEFFERSON COUNTY, WEST VIRGINIA AND INCORPORATED AREAS

PANEL 139 OF 245

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CHARLES TOWN, CITY OF	540066	0139	E
JEFFERSON COUNTY	540065	0139	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
54037C0139E
EFFECTIVE DATE
DECEMBER 18, 2009

Federal Emergency Management Agency

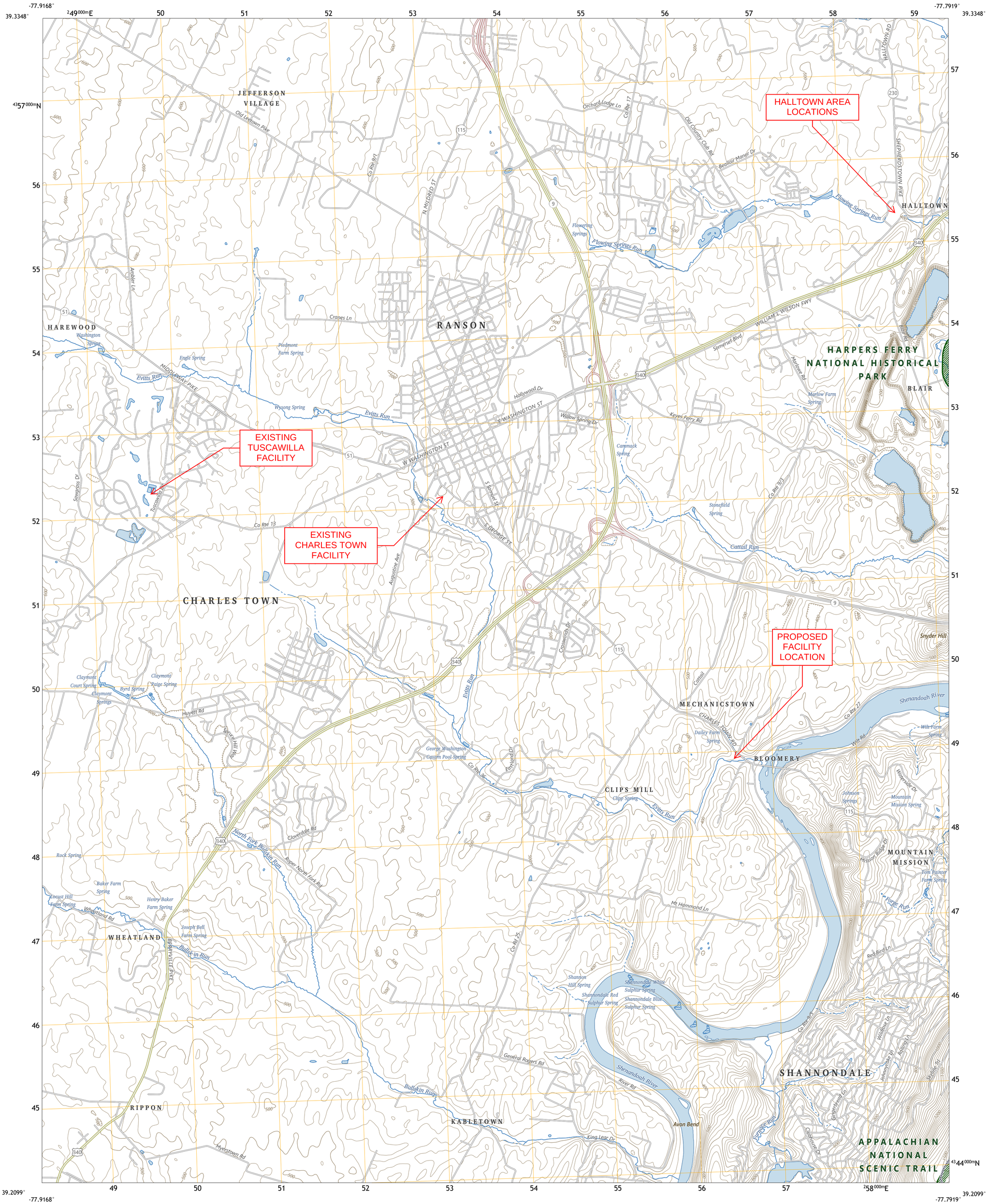
APPENDIX D

OVERALL SYSTEM MAP

DRAFT

25K RECREATIONAL TOPO, VIRGINIA - VIRGINIA - WEST VIRGINIA - WEST VIRGINIA

25K RECREATIONAL TOPO



RECREATION STRUCTURES

- Headquarters
- Ranger Station
- Visitor Center
- Picnic Area
- Cabin
- Trailhead
- Campground
- Shelter

STANDARD TRAIL

- Terra
- Snow
- Water

NATIONAL TRAIL

- Terra
- Snow
- Water

EMERGENCY SERVICES

- Fire Station
- Hospital
- Law Enforcement

TRANSPORTATION

- Airport
- Heliport
- Seaplane
- Interstate
- US Route
- State Route
- Expressway
- Secondary Hwy
- Local Road
- 4WD
- Tunnel
- Ferry

HYDROGRAPHY

- Dam / Weir
- Rock
- Rapids
- Spring / Seep
- Waterfall
- Perennial Stream
- Perennial Waterbody
- Intermittent Stream
- Intermittent Waterbody
- Freshwater Emergent Wetland
- Freshwater Forested / Shrub Wetland

BOUNDARIES

- International
- State or Territory
- County or Equivalent
- Wilderness
- Cemetery
- Wild & Scenic River
- National Monument
- Dept. of Defense
- Forest Service
- Fish & Wildlife Service
- National Park Service
- Bureau of Land Mgmt.

NATURAL FEATURES

TATOOSH RANGE
Green Mountain

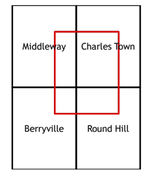
POPULATED PLACES

SEATTLE
CLYDE HILL

LOCATOR MAP



ADJOINING QUADRANGLES



SCALE 1:25 000

0 0.5 1 KILOMETERS 2
0 500 1000 METERS 2000
0 0.5 1
MILES
0 1,000 2,000 3,000 4,000 5,000
FEET

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

MN GN
10°19'
183 MILS
1°48'
32 MILS

UTM GRID AND 2025 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 - m Square ID
TJ
Grid Zone Designation
18S

Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84).
Projection and 1 000-meter grid: UNIVERSAL TRANSVERSE MERCATOR, ZONE 18S
Central meridian of -75.00°, rotating map -1.807774° to orient page to true north

User Defined Content

Data is provided by The National Map (TNM), is most current at the time of map generation, and includes features from the themes of Elevation, Hydrography, Geographic Names, Boundaries, Transportation, Structures, and Land Cover. There are no use constraints, however, users should be aware that temporal changes may have occurred since these data were collected and that some data may no longer represent actual surface conditions. Users should not use this data for critical applications without full awareness of its limitations. Map not for navigational use.

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Acknowledgement of the U.S. Geological Survey would be appreciated for products derived from these data.

Learn About The National Map: https://nationalmap.gov
View Source Data: https://apps.nationalmap.gov/viewer/

November 14, 2025

APPENDIX D

EXAMPLE PROCESS FLOW SCHEMATIC

DRAFT

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting **661 South George Street**
Charles Town, WV 25414

Jefferson County Parks and Recreation - Request for Sewer Service for James Hite Park

Attachments:

Draft Hite Road Park and North Jefferson Sewer Options.pdf

CTUB SEWER EXTENSION TO HITE ROAD PARK AND NORTH JEFFERSON ELEMENTARY SCHOOL

DRAFT- 01/23/2026

NORTH JEFFERSON ELEMENTARY

FOX GLEN DEVELOPMENT CURRENTLY ON SEPTIC

PROPOSED FORCEMAIN CONNECTION FROM HITE PARK

PROPOSED GRAVITY MAIN EXTENSION 4,000 L.F.

EXISTING 10" GRAVITY MAIN INV OUT 561.47

PROPOSED FORCEMAIN FROM HITE PARK (10,200 L.F.)

HITE ROAD PUBLIC PARK (REQUIRES ON SITE PUMPSTATION)

HITE ROAD PARK WILL REQUIRE A SEWER PUMPSTATION AND 10,200 L.F. OF FORCEMAIN.

SEWER GRAVITY MAY BE EXTENDED FROM CHARLES TOWN ROAD TO NORTH JEFFERSON

Gravity
Forcemain
Watermain
Manhole
Hydrants
PumpStation

0 0.1 0.2 0.4 Miles

Friday, January 23, 2026

HITE ROAD PUBLIC PARK AND NORTH JEFFERSON ELEMENTARY CONCEPTUAL COST ESTIMATE

Description	Quantity	Unit	Unit Price	Total Price
Sewer				
4" SDR 21 PVC Forcemain	10,200	LF	$65	$663,000.00
Air Release Assembly	3	EA	$6,000	$18,000.00
Flushing Valves	2	EA	$4,000	$8,000.00
Core Existing Manhole	1	EA	$1,000	$4,000.00
8" Gravity Main Extension	4,000	LF	$60	$240,000.00
4' Diameter Manhole	15	EA	$5,500	$82,500.00
Pump Station	1	EA	$250,000	$250,000.00
Total Sewer Construction				**$1,265,500.00**

Total Sewer Construction	**$1,265,500.00**
Contingency/Rock (15%)	**$189,825.00**
Total Anticipated Project Costs	**$1,455,325.00**

This estimate does not include construction drawings, easements, actual alignments or any other engineering related design

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting **661 South George Street**
Charles Town, WV 25414

GDF - Collection System Project - Change Order #3

Attachments:

C.O. No. 3 - Augustine Ave Boring.pdf

CHANGE ORDER NO.: 03

Owner:	Charles Town Utility Board	Owner's Project No.:	N/A
Engineer:	RK&K	Engineer's Project No.:	24054
Contractor:	HRI Inc.	Contractor's Project No.:	10341291
Project:	2022 Collection System Project		
Contract Name:	2022 Collection System Project CWSRF: C-544686 IJDC No. 2021S-2041		
Date Issued:	(date last signed below)	Effective Date of Change Order:	1/5/2026



The Contract is modified as follows upon execution of this Change Order:

Description:

Switching Augustine Ave. installation method from open cut to Jack and bore. Apply credit from WCD No. 02 for Jetts Farm for an overall contract price reduction of $36,183.50. See below for details.

Attachments: WVDEP correspondence (10/30/2025), WCD No.02 (3/27/2025), WCD No.03 (7/24/2025), HRI Inc PCO-002 (6/3/2025).

Change in Contract Price	Change in Contract Times
Original Contract Price: $ 6,074,000.00	Original Contract Times: Substantial Completion: (18 Mo's) June 18, 2026 Ready for final payment: (19 Mo's) July 18, 2026
[Increase] from previously approved Change Orders No. 1 to No. 2 $ 362,552.32	**[Increase] [Decrease]** from previously approved Change Orders No.1 to No. **[Number of previous Change Order]**: Substantial Completion: N/A Ready for final payment: N/A
Contract Price prior to this Change Order: $ 6,436,552.32	Contract Times prior to this Change Order: Substantial Completion: (18 Mo's) June 18, 2026 Ready for final payment: (19 Mo's) July 18, 2026
[~~Increase~~] [~~Decrease~~] this Change Order: $ 36,183.50	**[Increase] [Decrease]** this Change Order: Substantial Completion: N/A Ready for final payment: N/A
Contract Price incorporating this Change Order: $ 6,400,368.82	Contract Times with all approved Change Orders: Substantial Completion: (18 Mo's) June 18, 2026 Ready for final payment: (19 Mo's) July 18, 2026

Recommended by Engineer (if required)	Accepted by Contractor
By: Christopher M. Eckenrod	
Title: Engineering Manager	PROJECT MANAGER
Date: 1-15-2026	1/16/2026
Authorized by Owner	Approved by Funding Agency (if applicable)
By:	
Title:	
Date:	

EJCDC® C-941, Change Order EJCDC® C-941, Change Order, Rev.1.
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CO No. 03- Augustine Ave. and Jetts Farm

Items/quantities to be removed from contract per WCD No. 02 (Jetts Farm)				
Bid Item#	Description	Quantity	Total	
17	Grinder Pump No.2	1	$	23,000.00
40	1-1/2" SDR-9	855LF	$	46,170.00
48	Connect to Existing	1	$	2,000.00
55	Manhole Lining	6VF	$	600.00
54	Manhole Riser Ext.	1VF	$	1,300.00
45	Manhole Frame & Cover	1	$	1,500.00
62	Test Pit & Refill	1	$	5,000.00
	Total Reduction		**$**	**79,570.00**

Items to be removed from contract per WCD No. 03 (Augustine Ave Bore)				
Bid Item#	Description	Quantity	Total	
36	30" Gravity (open cut)	80LF	$	24,400.00
61	48" Steel Casing (Open cut)	80LF	$	128,000.00
	Total Reduction		**$**	**152,400.00**

Overall contract Reduction		**$**	**231,970.00**

Bid Item to be added			
Augustine Ave Jack and Bore ($2,317.00/LF)	84.5LF	**$**	**195,786.50**

Total Contract price reduction $ 36,183.50

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WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT

MEMORANDUM OF NEGOTIATION FOR CHANGE ORDER

Project Name: 2022 Collection System Project **Project No. C - 544** 686

Contract No. IJDC No. 2021S-2041 **Change Order No.** 03

Parties in Attendance: **Date:** 01/05/2026

CTUB (Owner), HRI (Contractor), GD&F (Engineer)

Description of Change Order:

This Change Order documents the final reconciliation of work previously authorized under Work Change Directive No. 03 for the Augustine Avenue sewer crossing installed via jack-and-bore, based on actual installed quantities and confirmed soil conditions. This Change Order also incorporates credits associated with the removal of the Jetts Farm Residential scope of work previously authorized under Work Change Directive No. 02.

Contractor's Comments (Price Proposal):

HRI Proposal for Augustine Avenue Jack and Bore (PCO-02), dated June 6, 2025.
Work Change Directive No. 03 – Augustine Avenue Bore, dated July 24, 2025.
GD&F correspondence confirming approved unit price and final quantity, dated October 16, 2025
Work Change Directive No. 02 – Jetts Farm Residential Scope Removal, dated March 27, 2025

Engineer's Comments:

The Engineer has reviewed the final quantities, unit pricing, and associated credits and confirms that the proposed adjustments are consistent with Work Change Directives Nos. 02 and 03, the approved PCO unit pricing, and WVDEP correspondence dated October 30, 2025. This Change Order is issued for documentation and accounting purposes only and reflects a net decrease to the Contract resulting from the removal of previously bid open-cut work and Jetts Farm Residential items.

Owner's Comments:

The Owner agrees with the proposed Change Order as presented. The adjustments accurately reflect the completed work, approved unit pricing, and credits for removed scope.

Results:

Remove the originally bid open-cut installation consisting of approximately 80 linear feet of 48-inch steel casing and associated 30-inch PVC gravity sewer under Augustine Avenue, and replace with a jack-and-bore installation paid on a unit-price basis.

Refer to attached Change Order Summary documents.

CHRISTOPHER M. ECKENRODE REGISTERED 20110 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER
1-15-2026

Time Change:

None

Signatures of Acceptance:

Contractor _____

Engineer Christopher M. Eckenrode

Owner _____

CHANGE ORDER NO. 3

2022 Collection System Project – Augustine Avenue Bore and Jetts Farm Credit

Owner: Charles Town Utility Board

Engineer: Gwin, Dobson & Foreman, Inc.

Contractor: HRI, Inc.

Change Order No.: 03

Date of Issuance: 1/05/2026

1. Description of Change

This Change Order documents the final accounting for the Augustine Avenue sewer crossing installed via jack-and-bore, as previously authorized under Work Change Directive No. 03, and incorporates credits associated with the removal of the Jetts Farm Residential scope previously authorized under Work Change Directive No. 02.

2. Reason for Change

The originally bid open-cut installation under Augustine Avenue was replaced with a jack-and-bore installation to avoid significant traffic disruption and construction risk. Because subsurface conditions could not be confirmed in advance, Work Change Directive No. 03 was issued to authorize the work on a unit-price basis, with final quantities to be reconciled after completion.

Separately, Work Change Directive No. 02 removed the Jetts Farm Residential scope of work from the Contract. This Change Order incorporates the associated credits for that removed scope.

3. Basis of Payment

Payment for the Augustine Avenue bore is based on the unit pricing established in HRI PCO-002 and authorized under Work Change Directive No. 03:

- Jack-and-bore in soil: $2,317.00 per linear foot

4. Contract Price Adjustment

A. New Pay Item – Augustine Avenue Jack-and-Bore (Soil)

Description	Quantity	Unit Price	Amount
Augustine Ave Jack-and-Bore (Soil)	84.5 LF	$2,317.00	$195,786.50

B. Credits – Jetts Farm Residential Scope (WCD No. 02)
Pursuant to Work Change Directive No. 02, the following bid items associated with the Jetts Farm Residential scope were removed from the Contract and are credited at zero quantity:

Bid Item Removed	Credit Amount
Bid Item 17 – Grinder Pump No. 2	$23,000.00
Bid Item 40 – 1-1/2" SDR-9 Force Main (855 LF)	$46,170.00
Bid Item 48 – Connect to Existing	$2,000.00
Bid Item 55 – Internal Manhole Lining (6 VF)	$600.00
Bid Item 54 – Manhole Riser Extension (1 VF)	$1,300.00
Bid Item 45 – Manhole Frame & Cover (Highway)	$1,500.00
Bid Item 62 – Test Pit Excavation & Refill	$5,000.00

Total Credit – Jetts Farm Residential Scope: $79,570.00

C. Net Effect on Contract Price
The net effect on the Contract Price results from the addition of the Augustine Avenue jack-and-bore work and corresponding reductions to the originally bid open-cut items that were not constructed.

Additions:
• Augustine Avenue Jack-and-Bore (Soil): 84.5 LF × $2,317.00/LF = $195,786.50

Reductions (Original Bid Items Not Constructed):
• Bid Item 36 – 30" PVC Gravity Sewer (Open Cut): Reduced by 80 LF × $305.00/LF = ($24,400.00)
• Bid Item 61 – 48" Steel Casing (Open Cut): Reduced by 80 LF × $1,600.00/LF = ($128,000.00)

Summary:
• Total added cost for jack and bore: $195,786.50
• Total credit for open-cut work not performed: ($152,400.00)
• Total credit for Jetts Farm: ($79,570.00)
• Overall contract **reduction**: **($36,183.50)**.
All reductions are reflected through quantity adjustments to the original bid items in accordance with DEP guidance.

5. Contract Time Adjustment
No change to Contract Time.

6. Clarification

This Change Order is issued for documentation and accounting purposes to memorialize the final reconciliation of work previously authorized under Work Change Directives Nos. 02 and 03. Issuance of this Change Order does not represent a change in scope, pricing basis, or authorization beyond what has already been approved.

7. Supporting Documentation

- Work Change Directive No. 03 – Augustine Avenue Bore
- Work Change Directive No. 02 – Jetts Farm Residential Scope Removal
- HRI PCO-002 – Augustine Avenue Bore
- WVDEP correspondence dated October 30, 2025

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting **661 South George Street**
Charles Town, WV 25414

South George Street Property Information for Consideration for Future CTUB Expansion

Attachments:

S George St Property Info.pdf

S George St
Charles Town, WV 25414

- -

$750,000

Active

Land for Commercial Use

Zoning **300**

0.00 Building SqFt



1 / 36

Unlock the potential of your business with this exceptional 6.33-acre commercial land lot in the heart of Charles Town, West Virginia. Strategically located with easy access to Route 340, this prime property offers unparalleled visibility and convenience, making it an ideal investment for a wide range of commercial ventures. This versatile and open land is zoned for commercial use, suitable for a variety of business applications. Its central location in Charles Town ensures high visibility and exposure, with a high traffic count that guarantees excellent exposure for your business. The convenient access to Route 340, a major thoroughfare, adds to its appeal, making it perfect for retail, office space, hospitality, or mixed-use development. Seize this unique opportunity to establish your business in a thriving area with robust growth potential. Whether you're looking to expand your current operations or embark on a new venture, this property offers the perfect canvas to realize your vision.

About S George St, Charles Town, WV 25414

Directions: **From downtown Charles Town, take a right at the stop light to turn onto S. George St. In approximately 1 mile, property will be on the right. Beside City National Bank. Call if you have any**

issues!

General Description

List Price	$750,000.00
Status	Active
MLS Number	WVJF2013064
Tax ID #	03 8000200010000
Ownership Interest	Fee Simple
Association	No
Sub Type	Land for Commercial Use
Waterfront	No
Net Square Feet	0.00
Business Use	Auto Related, Banquet Facility/Lodge, Big Box Retail, Bowling Alley, Campground, Car Wash/Truck Wash, Cold Storage, Convenience Store/Gas, Day Care Facility, Equestrian Center, Garden Center, Hair Salon and Spa, Health Club, Hotel/Motel, Ice Skating Rink, Institutional, Manufacturing, Medical, Other, Other/General Retail, Parking Lot, Professional, Recreation, Restaurant/Bar, Shopping Center, Storage, Supermarket/Grocery Store, Truck Maintenance Facility, Vet/Kennel, Warehouse
Year Built	1500

Location

County	Jefferson, WV
In City Limits	No
Municipality	Charles Town
City	Charles Town
School District	Jefferson County Schools
Election District	1

Taxes and Assessment

Tax Annual Amount	$0.00
Tax Year	2022
School Tax	0.00
County Tax	$0.00
County Tax Payment Frequency	Annually
City Town Tax	$0.00
City Town Tax Payment Frequency	Annually
Clean Green Assessed	No
Zoning	300
Tax Assessed Value	$98,200.00
Assessment Year	2022
Improvement Assessed Value	$0.00
Land Assessed Value	$98,200.00
Land Use Code	014

Commercial Sale Information

Business Use	Auto Related, Banquet Facility/Lodge, Big Box Retail, Bowling Alley, Campground, Car Wash/Truck Wash, Cold Storage, Convenience Store/Gas, Day Care Facility, Equestrian Center, Garden Center, Hair Salon and Spa, Health Club, Hotel/Motel, Ice Skating Rink, Institutional, Manufacturing, Medical, Other, Other/General Retail, Parking Lot, Professional, Recreation, Restaurant/Bar, Shopping Center, Storage, Supermarket/Grocery Store, Truck Maintenance Facility, Vet/Kennel, Warehouse
Potential Tenancy	Single
Building Total SQFT	0
Building Total SQFT Source	Estimated

Building Info

Building Units Total	0
Construction Materials	Other

Lot

Lot Size Acres	6.33
Lot Size SQFT	275735
Lot Size Source	Assessor
Lot Features	Level, Road Frontage

Parking

Parking Type:	Other Parking
Truck/Trailer Parking Spaces	0
Car Parking Spaces	0
Total Parking Spaces	0

Interior Features

Accessibility Features	None

Utility Information

Cooling Type	No Cooling
Cooling Fuel	None
Heating Type	None
Heating Fuel	None
Heating Fuel	None
Hot Water	None
Water Source	Public Hook-up Available
Sewer Septic	Public Hook/Up Avail

Listing Details

Original List Price	$750,000
DOM	540
Vacation Rental	No

Sale Type	Standard
Listing Term Begins	07/29/2024
Possession	Settlement

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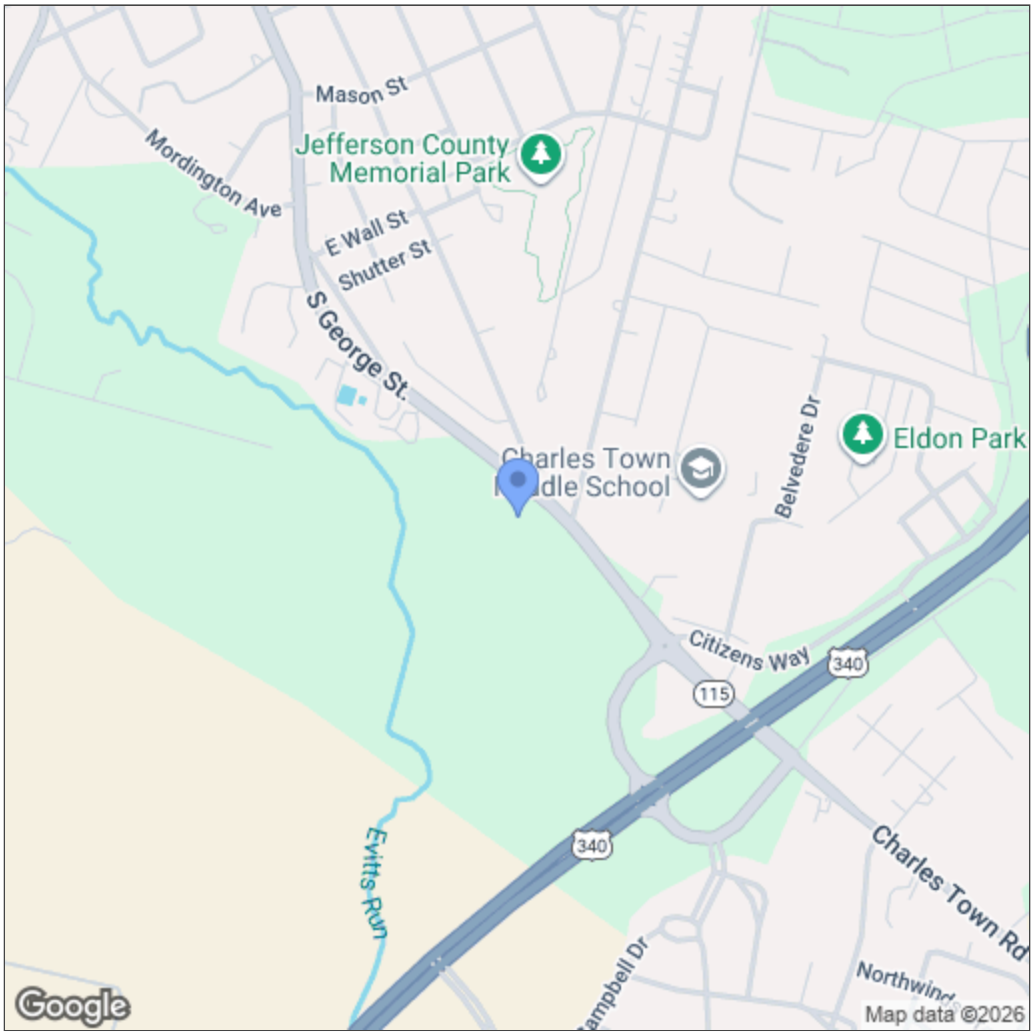
Notes for you and your agent

Notes for, and from, your contacts appear here when viewing this listing in a contact's results.



Sara Duncan | RE/MAX Distinctive Real Estate | sara@saraduncanrealty.com

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CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting

661 South George Street
Charles Town, WV 25414

Cooley Public Strategies Update and 1st Quarter Approach

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting

661 South George Street
Charles Town, WV 25414

Draft Burns Farm Extension Agreement Renewal - Possible Executive Session Under: WV 1 State Code Section §6-9A-4(b)(9) - To consider matters involving or affecting the purchase, sale or lease of property, advance construction planning, the investment of public funds or other matters involving commercial competition, which if made public, might adversely affect the financial or other interest of the state or any political subdivision and involving contract matters.

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting

661 South George Street
Charles Town, WV 25414

Summit Point Motorsports Park Funding Update

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting **661 South George Street**
Charles Town, WV 25414

Tuscawilla PEW Pump Quotes

Attachments:

Pump Quotes rev.pdf

ESTIMATE

iM Motors LLC
135 Thicket Dr
Ridgeley, WV 26753

im_motors@yahoo.com
+1 (814) 285-2801
www.immotors.net

iM Motors LLC

RESIDENTIAL

Bill to
Deming
Charles Town Utility Board
661 South George Street
suite 101
Charles Town WV 25414

Estimate details
Estimate no.: 5710
Estimate date: 01/15/2026

#	Date	Product or service	Description	Qty	Rate	Amount
1.		**Misc**	DEMING VTP Rev NS U/M EA DEMING VERTICAL TURBINE: SD34-10 CAST IRON DISCHARGE HEAD WITH AIR RELEASE ASSEMBLY Y & LIFTING LUGS, 1" PACKING BOX ASSEMBLY, 3" THREADED COLUMNS X 1" 416 SS SHAFTING, 4 STAGE MODEL 5HE BOWL ASSEMBLY WITH BOWL WEAR RINGS, 316SS IMPELLERS WITH WEAR RINGS, BRONZE BOWL BEARINGS, BELL MOUTH SUCTION WITH GREASE PACKED SUCTION, 316SS BASKET STRAINER, FOUNDATION PLATE, MOTOR SHAFT ASSEMBLY. SHIPPING ASSEMBLED - DUPLICATE TO DN-46492 **NOTE: EPOXY COAT O.D. OF PUMP - DEMING SCOTCH-KOTE 134 **NOTE: RATED FOR 120 GPM@208' TDH - 9'- 10" OAL TO THE BOTTOM OF THE STAINLESS STEEL STRAINER.	1	$26,301.00	$26,301.00
2.		**Misc**	10HP MOTOR - DIRECT SHIP Rev NS U/M EA U.S. Motors: 10HP, 3600RPM, INVERTER DUTY -VFD RATED, VHS, TEFC, 3/60/230-460 Volt, Premium Eff.,	1	$3,607.00	$3,607.00

		NRR, SPACE HEATERS, H215 TP Frame, 1" COUPLING, 10" BASE.			
3.	**Misc**	Freight allowed	1	$1,570.00	$1,570.00

Total **$31,478.00**

Accepted date **Accepted by**

STH
97 D Monocacy Blvd
Frederick MD 21701
Phone: (301) 682-3390
Fax: (301) 682-3391

Quote

Quote # QTE36439

Date 1/6/2026

Bill To

Charles Town Utility Board
661 South George Street
suite 101
Charles Town WV 25414
United States

Ship To

Tuscawilla WWTP Pump House
1192 Tuscawilla Drive
Charles town WV 25414
United States

TOTAL

$31,790.00

Expires: 2/5/2026

Title

Deming VT Pump Repair

Service Address

STH Shop Middletown Maryland 21769

Account Rep	Terms
Cameron A Hallock (301) 370-3949	Net 30

Item	Quantity	Rate	Amount
PS-Municipal Repair Equip: Deming Vertical Turbine S/N: 46492-2 STH quote to perform repair on Deming VT pump. Pump will need to have all parts replaced. STH recommends a new pump over repair. Work to be done during normal business hours (M-F,7-3). Scope of Work: Order and assemble the following parts - Discharge Head - Rotating shaft - column pipe - bowls - seals/packing - impellers - stuffing box - couplings - Motor - Strainer - bearings - all the bolts, nuts and gaskets associated with the repair - Paint *See Terms and Conditions below regarding Tax and Minimum Hour rates. *STH cancellation policy requires customers to provide at least a 24-hour notice of cancellation. Failure to do so, may result in a cancellation fee of up to $400.*	1		$30,290.00

STH
97 D Monocacy Blvd
Frederick MD 21701
Phone: (301) 682-3390
Fax: (301) 682-3391

Quote

Quote # QTE36439

Date 1/6/2026

Item	Quantity	Rate	Amount
*Note- Safety is STH's highest concern. All work performed by STH personnel trained in NFPA70E Electrical Hazard Protection and use of safety equipment as required. To execute, please sign and return the quote so that we can order parts & schedule the work. Best Regards,			
Freight Allowed Freight allowed - prepaid transportation charges which are included in the contract price	1	$1,500.00	$1,500.00

*****Quoted price does not include Federal, State, or Local Sales Tax.*****

Subtotal	$31,790.00
Tax Total (%)	$0.00
Total	$31,790.00

Terms and Conditions:

Price Adjustment Clause

Tariffs and Duties

Dear Valued Customer,

Payment is expected per agreed upon payment terms. Late payments are subject to 2% late fee per month calculated from the day of service. Returned checks result in a $35 returned check charge.

Standard STH Labor Rates: Per service technician are Monday – Friday $185.00 per hour per man from 7:00am – 3:30pm. Additional charges will apply for after 3:30pm weekdays and for Saturdays, Sundays and Holidays. There is always a 4-Hour Minimum Labor Charge. Additional labor and materials will be billed unless quoted above. (Quote valid for only 30 days). FOB Shipping Point. Start-Up and Warranty will not be provided until complete payment has been received. Terms are Net Due Upon Receipt Pending Credit Approval. Past due accounts are subject to a 2% per month service charge. APR of 24%. All attorney fee and court costs incurred in collection of past due accounts will be added to amount due. The above is accepted subject to terms as stated. Payment will be issued in accordance with STH Terms. STH will accept a facsimile or Email of this agreement to be as legally binding as an original document.

If, during the performance of this contract, the cost of materials significantly increases due to circumstances beyond the control of STH, the contract price will be equitably adjusted to reasonably cover such increases.

Any tariffs, duties, import fees, or other government-imposed charges assessed on the shipment of goods shall be the sole responsibility of the customer. If such charges are incurred by STH at the time of import or delivery, they will be passed through to the customer and added to the final invoice. The customer agrees to pay any such additional charges in full upon receipt of the invoice. Unless otherwise agreed upon or superseded by a prior written agreement, STH is not responsible for any delays, costs, or liabilities resulting from the imposition of tariffs or related regulations.

STH
97 D Monocacy Blvd
Frederick MD 21701
Phone: (301) 682-3390
Fax: (301) 682-3391

Quote

Quote # QTE36439

Date 1/6/2026

PO #: _____ Date: _____ STH Authorization: _____ Date: _____

Company Name: _____ Date: _____

Authorized:_____ Title: _____

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting

661 South George Street
Charles Town, WV 25414

Utility Manager Report

Attachments:

FY 2025 Compiled Financial Statements.pdf
01.21.26 Corrosion Control Conversion Notice Letter.pdf

CHARLES TOWN UTILITY BOARD

COMPONENT UNIT OF MUNICIPALITY OF CHARLES TOWN

FINANCIAL STATEMENTS

FOR THE YEAR ENDED JUNE 30, 2025

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Charles Town Utility Board
SCHEDULE OF FUNDS INCLUDED IN REPORT
June 30, 2025

BUSINESS-TYPE FUNDS

Major Funds

Water Fund

Sewer Fund

Charles Town Utility Board
BOARD OFFICIALS AND MANAGEMENT
June 30, 2025

		Term Expires
City Manager of Charles Town Chairman	Brent Manuel	
Vice Chairman	John Maxey	12/31/29
Treasurer	Duke Pierson	12/31/26
Board Member	Heidi Parker	12/31/27
Board Member	Patrick Kratovil	12/31/28
Utility Manager	Kristen Stolipher	
Assistant Utility Manager	April Shultz	
Board Attorney	Robert Rodecker	
Secretary	Ashley Stottlemyer	

J.C. Kunkle & Associates, A.C.
CERTIFIED PUBLIC ACCOUNTING & CONSULTING

ACCOUNTANT'S COMPILATION REPORT ON FINANCIAL STATEMENTS

Utility Board of Directors
Charles Town Utility Board
Charles Town, West Virginia

Management is responsible for the accompanying basic financial statements of Charles Town Utility Board (the "Utility Board"), a component unit of the Municipality of Charles Town, as of and for the year ended June 30, 2025, and the related notes to financial statements, which collectively comprise the Utility Board's basic financial statements as listed in the table of contents, in accordance with accounting principles generally accepted in the United States of America. We have performed a compilation engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. We did not audit or review the financial statements nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by management. We do not express an opinion, a conclusion, nor provide any form of assurance on these financial statements.

We are not independent with respect to Charles Town Utility Board.

Accounting principles generally accepted in the United States of America require that the Management Discussion and Analysis, Schedules of the Utility Board's Proportionate Share of the Collective Net Pension Liability (Asset), Schedules of the Utility Board's Pension Plan Contributions, Schedules of the Utility Board's Proportionate Share of the Net OPEB Liability (Asset), and Schedules of the Utility Board's OPEB Plan Contributions contained on pages 6 to 11 and pages 44 to 48 be presented to supplement the basic financial statements. Such information is presented for purposes of additional analysis and, although not a required part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. Such information is the responsibility of management. The required supplementary information was subject to our compilation engagement. We have not audited or reviewed the required supplementary information and, accordingly, do not express an opinion, a conclusion, nor provide any assurance on such information.

The introductory information contained on pages 3 and 4 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management. The supplementary information was subject to our compilation engagement, however, we have not audited or reviewed the supplementary information and do not express an opinion, a conclusion, nor provide any form of assurance on such supplementary information.

J.C. KUNKLE & ASSOCIATES, A.C.

Martinsburg, West Virginia
January 15, 2026

164 Lina Lane ▪ Martinsburg, WV 25405
304/263-9299 ▪ Fax 304/267-7032 ▪ e-mail: jckunkle@jckunkleassociates.com
MEMBER: AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS

The discussion and analysis of the Charles Town Utility Board's (Utility Board) financial performance provides an overview of the Utility Board's financial activities for the fiscal year ended June 30, 2025. Please read it in conjunction with the Utility Board's financial statements.

FINANCIAL HIGHLIGHTS

The Utility Board's net position increased $6.3 million as a result of this year's operations. Net position of the water fund increased $3.0 million compared to the previous year, or 21.6 percent. Net position of the sewer fund increased by $3.3 million, or 7.9 percent compared to the previous year. The water and sewer fund increases are primarily the result of an increasing customer base, water and sewer rate changes effective February 16, 2024, developer and grant contributions and capacity improvement fees.

The Utility Board's operating revenues increased $1.1 million to $12.8 million for 2025. Operating expenses increased $1.9 million to $12.5 million for 2025. Water fund operating income decreased $0.1 million to $0.2 million and sewer operating income decreased $0.7 million to $0.1 million for 2025.

The $1.1 million increase in operating revenues is primarily a result of system growth and a change in water and sewer rates effective February 11, 2024. The $1.9 million increase in operating expenses is attributed to increases in personnel service ($0.5 million), increases in maintenance and materials ($0.2 million), increases in utilities ($0.1 million), increases in administrative ($0.1 million), and increases in depreciation expense ($1.0 million).

By City Council ordinance adopted January 2, 2024, and effective February 16, 2024, the Utility Board equalized its water rates and its sewer rates throughout its service area.

The Utility Board added approximately $5.1 million and $7.7 million in capital assets during 2025 and 2024, respectively. During 2025, approximately $3.1 million was added from sewer construction in progress related to the sewer department's wastewater treatment plant renewal and replacement and collection system projects and $0.7 million in water and sewer utility plant was added through developer contributions and advances. During 2024, approximately $5.8 million was from construction in progress related to the sewer projects. Also during 2024, the Utility Board added approximately $1.1 million of sewer utility plant through developer contributions.

During 2025, the Utility Board's $12 million renewal and replacement project was placed in service.

At June 30, 2025, the Utility Board was in the construction phase of its sewer department collection system project. The estimated cost of the project is $7.8 million with $1.8 million expended as of June 30, 2025.

During 2025, the Utility Board issued 2024 A and B bond issues in the aggregate amount of $3,060,984 to partially fund the collection system project.

During 2024, the Utility Board issued no fixed debt.

FINANCIAL HIGHLIGHTS (continued)

The Utility Board made all required contractual payments to the West Virginia Public Employees Retirement System and West Virginia Retiree Health Benefits Trust during 2025 and 2024.

USING THIS ANNUAL REPORT

1. Management's Discussion and Analysis

   The Management's Discussion and Analysis is intended to serve as an introduction to the Utility Board's financial statements. The Utility Board's financial statements and Notes to the Financial Statements included in this report were prepared in accordance with GAAP applicable to governmental entities in the United States of America for proprietary fund types.

2. Financial Statements

   The financial statements are designed to provide readers with a broad overview of the Utility Board's finances, in a manner similar to private-sector business. They consist of the Statement of Net Position, Statement of Revenues, Expenses and Changes in Net Position, and Statement of Cash Flows.

   The Statement of Net Position presents information on all the Utility Board's assets/deferred outflows and liabilities/deferred inflows with the difference between the two reported as net position. Increases or decreases in net position will serve as a useful indicator of whether the financial position of the Utility Board is improving or deteriorating.

   The Statement of Revenues, Expenses and Changes in Net Position presents information showing how the Utility Board's net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported in this statement for some items that will result in cash flows in different fiscal periods (e.g. Depreciation and earned but unused vacation and sick leave).

   The Statement of Cash Flows presents the Utility Board's sources and uses of cash and changes in cash balances between the current and prior year.

   The basic financial statements report all Utility Board financial activities. The activities are primarily supported by water and sewer user fees. The Utility Board's mission is furthering the preservation of public health, comfort and convenience by providing water and sewer services to the residents of Charles Town, Ranson, territories formerly served by the Jefferson County Public Service District, and other areas in Jefferson County.

USING THIS ANNUAL REPORT (continued)

3. Notes to Financial Statements

The Notes to Financial Statements provide additional information that is essential to a full understanding of the data provided in the basic financial statements. The Notes to Financial Statements can be found in the financial statements mentioned at #2 above.

REPORTING THE UTILITY BOARD AS A WHOLE

The analysis below focuses on net position (Table 1) and changes in net position (Table 2) of the Utility Board's financial activities.

Table 1 - Net Position (in Millions)

	Water		Sewer		Total	
	2025	2024	2025	2024	2025	2024
Current and other assets	$ 17.5	$ 15.0	$ 15.7	$ 14.1	$ 33.2	$ 29.1
Capital assets	18.2	18.9	66.7	65.6	84.9	84.5
Total assets	35.7	33.9	82.4	79.7	118.1	113.6
Deferred outflows of resources	0.3	0.2	0.2	0.2	0.5	0.4
Total assets and deferred outflows of resources	$ 36.0	$ 34.1	$ 82.6	$ 79.9	$ 118.6	$ 114.0
Long-term debt outstanding	$ 13.8	$ 14.7	$ 25.7	$ 26.7	$ 39.5	$ 41.4
Other liabilities	0.5	0.4	11.6	11.3	12.1	11.7
Total liabilities	14.3	15.1	37.3	38.0	51.6	53.1
Deferred inflows of resources	4.8	5.1	0.1	-	4.9	5.1
Net position:						
Net investment in capital assets	4.4	4.2	30.2	30.2	34.6	34.4
Restricted	9.5	7.2	9.9	8.3	19.4	15.5
Unrestricted	3.0	2.5	5.1	3.4	8.1	5.9
Total net position	16.9	13.9	45.2	41.9	62.1	55.8
Total liabilities, deferred inflows, and net position	$ 36.0	$ 34.1	$ 82.6	$ 79.9	$ 118.6	$ 114.0

REPORTING THE UTILITY BOARD AS A WHOLE (continued)

The net position of the Utility Board as a whole increased by 11.3 percent ($6.3 million). Unrestricted net position - the part of net position that can be used to finance day-to-day operations without constraints established by debt covenants, enabling legislation, or other legal requirements, increased from $5.9 million at June 30, 2024, to $8.1 million at the end of this year, a 37.3 percent increase.

Water net position increased by $3.0 million or 21.6 percent and sewer net position increased by $3.3 million or 7.9 percent.

By far, the largest portion of the Utility Board's assets reflects its investment in capital assets. The Utility Board uses these capital assets to provide water and sewer services to its customers; consequently, these assets are not available for future spending.

Table 2 - Changes in Net Position (in Millions)

	Water		Sewer		Total	
	2025	2024	2025	2024	2025	2024
Operating revenues	$ 5.4	$ 4.7	$ 7.4	$ 7.0	$ 12.8	$ 11.7
Operating expenses	5.2	4.4	7.3	6.2	12.5	10.6
Operating income	0.2	0.3	0.1	0.8	0.3	1.1
Non-operating revenues (expenses)	0.6	0.4	(0.4)	(0.4)	0.2	-
Changes in net position before capital contributions	0.8	0.7	(0.3)	0.4	0.5	1.1
Capital contributions	2.2	1.7	3.6	5.6	5.8	7.3
Change in net position	$ 3.0	$ 2.4	$ 3.3	$ 6.0	$ 6.3	$ 8.4

The Utility Board's operating revenues increased $1.1 million. Operating expenses of the water department increased $0.8 million and operating expenses of the sewer department increased $1.1 million. The analysis separately considers the operations of the water and sewer funds.

BUDGETARY HIGHLIGHTS

For the year ended June 30, 2025, budgets were prepared by the Utility Board's management and were approved by the Utility Board of Directors. The budgets were primarily used as a management tool and have no legal stature. The budgets were prepared in accordance with principles used in the preparation of the basic financial statements.

CAPITAL ASSET AND DEBT ADMINISTRATION

Capital Assets

At June 30, 2025, the Utility Board had $84.9 million invested in a broad range of capital assets, including land, structures, machinery and equipment, and water and sewer lines (see Table 3 below). This amount represents a net increase (including additions, disposals, and depreciation) of $0.4 million compared to the previous year.

Table 3 - Capital Assets at Year-End (Net of Depreciation, in Millions)

	2025	2024
Capital assets not depreciated - utility plant (land, easements, and construction in progress)	$ 4.4	$ 13.2
Capital assets depreciated - utility plant	131.8	119.5
Right to use assets (office facility, equipment and software subscriptions)	0.8	0.5
Totals	137.0	133.2
Accumulated depreciation and amortization	(52.1)	(48.7)
Capital assets, net of depreciation	$ 84.9	$ 84.5

2025 Utility Plant Additions (capital assets being depreciated)	
Water (at cost or estimated fair value excluding accumulated depreciation)	
Pumping plant	$ 0.2
Water treatment plant	0.1
Transmission and distribution mains	0.3
Transportation and other	0.2
	0.8
Sewer (at cost or estimated fair value excluding accumulated depreciation)	
Collection plant	0.5
Pumping plant	0.2
Treatment and disposal plant	12.0
Transportation and other	0.1
	12.8
Total 2025 additions to utility plant in service	13.6
2025 utility plant retirements (capital assets being depreciated)	
Water	0.1
Sewer	1.2
Total 2025 utility plant retirements	1.3
Net increase in utility plant (capital assets being depreciated) for 2025	$ 12.3

Debt

At year-end, the Utility Board had $39.5 million in long-term debt outstanding compared to $41.4 million in the previous year.

Table 4 - Outstanding Debt at Year-End (in Millions)

	2025	2024
Lease Liability	$ 0.4	$ 0.4
Software subscriptions	0.2	-
Loans (Municipality of Charles Town)	0.5	0.5
Bonds	38.4	40.5
	$ 39.5	$ 41.4

The Utility Board issued $3.061 million of Series 2024 A&B revenue bonds in 2024 to finance construction of the sewer collection system project.

The Utility Board issued no fixed debt during 2024.

The bond debt resulted from issuing revenue bonds for the construction of water and sewer utility plant improvements and acquisition of former JCPSD net assets. These bonds are secured by revenues derived from the combined water and sewer system. Other debt obligations include loans, subscription liability, and leases. More detailed information about the Utility Board's long-term liabilities is presented in the notes to the financial statements.

ECONOMIC FACTORS

The Utility Board's management considered many factors when setting the fiscal-year 2025 budget. One of those factors was the economy. The County's population has a direct impact on the Utility Board's economic growth.

The Utility Board is optimistic about its potential for economic growth in the future. The increasing population, infrastructure improvements, annexation, acquisition of other utilities, and procurement of grants and other funding sources are all positive indicators for continued economic growth of the Utility Board.

CONTACTING THE UTILITY BOARD'S FINANCIAL MANAGEMENT

This financial report is designed to provide citizens, customers, and investors and creditors with a general overview of the Utility Board's finances and to show the Utility Board's accountability for the money it receives. If you have questions about this report or need additional financial information, contact the Utility Manager at 661 South George Street, Suite 101, Charles Town, WV 25414.

Charles Town Utility Board
STATEMENT OF NET POSITION
June 30, 2025

ASSETS AND DEFERRED OUTFLOWS

	Water Fund	Sewer Fund	Totals
ASSETS			
CURRENT ASSETS			
Cash	$ 1,500,128	$ 4,348,181	$ 5,848,309
Accounts receivable, net of allowances	863	181,260	182,123
Lease receivable (current portion)	273,776	-	273,776
Inventory, at cost	196,990	14,495	211,485
Prepaid insurance	25,179	25,179	50,358
Accrued utility revenue	451,953	610,387	1,062,340
Total current assets	2,448,889	5,179,502	7,628,391
RESTRICTED ASSETS			
Debt service and debt service reserve funds	575,242	412,828	988,070
Construction funds	-	341,418	341,418
Capacity improvement funds	8,029,540	8,634,623	16,664,163
Repair and replacement funds	978,353	880,731	1,859,084
Total restricted assets	9,583,135	10,269,600	19,852,735
CAPITAL ASSETS			
Utility plant in service	39,902,065	93,860,832	133,762,897
Less: accumulated depreciation and amortization	22,269,186	29,554,839	51,824,025
Net utility plant in service	17,632,879	64,305,993	81,938,872
Construction in progress	289,355	2,065,583	2,354,938
Total capital assets	17,922,234	66,371,576	84,293,810
RIGHT TO USE ASSETS			
Office facility and equipment	253,803	258,011	511,814
Software subscriptions	170,720	170,720	341,440
Total right to use assets in service	424,523	428,731	853,254
Less: accumulated amortization	(124,220)	(125,062)	(249,282)
Total right to use assets	300,303	303,669	603,972
OTHER ASSETS			
Lease receivable (net of current portion)	5,252,919	-	5,252,919
Prepaid bond insurance	79,756	145,820	225,576
Collective net pension asset	92,030	98,592	190,622
Net OPEB asset	-	-	-
Total other assets	5,424,705	244,412	5,669,117
Total assets	35,679,266	82,368,759	118,048,025
DEFERRED OUTFLOWS OF RESOURCES			
Unamortized amounts from refunding of debt	23,583	1,424	25,007
Defined benefit pension plan contribution	109,179	107,557	216,736
Other post employment plan contribution	7,137	5,670	12,807
Collective deferred outflows related to pension plan	132,297	130,552	262,849
Collective deferred outflows related to post employment plan	3,091	-	3,091
Total deferred outflows	275,287	245,203	520,490
Total assets and deferred outflows	$ 35,954,553	$ 82,613,962	$ 118,568,515

See accountant's compilation report and notes to financial statements.

Charles Town Utility Board
STATEMENT OF NET POSITION (CONTINUED)
June 30, 2025

LIABILITIES, DEFERRED INFLOWS AND NET POSITION

	Water Fund	Sewer Fund	Totals
CURRENT LIABILITIES (PAYABLE FROM CURRENT ASSETS)			
Accounts payable	$ 69,250	$ 83,573	$ 152,823
Accrued expenses	128,928	89,072	218,000
Customer deposits	118,654	222,793	341,447
Lease liability (current portion)	10,550	11,128	21,678
Subscription liability (current portion)	46,024	46,024	92,048
Total current liabilities (payable from current assets)	373,406	452,590	825,996
CURRENT LIABILITIES (PAYABLE FROM RESTRICTED ASSETS)			
Revenue bonds payable (current portion)	1,020,314	1,309,937	2,330,251
Accrued revenue bond interest payable	95,399	47,676	143,075
Construction accounts payable	43,438	848,571	892,009
Customer advances for construction	-	10,284,713	10,284,713
Total current liabilities (payable from restricted assets)	1,159,151	12,490,897	13,650,048
LONG-TERM LIABILITIES (NET OF CURRENT PORTION)			
Revenue bonds payable (net of current portion)	12,081,257	23,983,141	36,064,398
Lease liability (net of current portion)	193,580	196,041	389,621
Subscription liability (net of current portion)	40,225	40,225	80,450
Accrued expenses	66,521	67,283	133,804
Loan from Charles Town	363,480	97,891	461,371
Total long-term liabilities	12,745,063	24,384,581	37,129,644
Total liabilities	14,277,620	37,328,068	51,605,688
DEFERRED INFLOWS OF RESOURCES			
Collective deferred inflows related to other post employment benefit plan	13,129	40	13,169
Collective deferred inflows related to pension plan	117,487	127,971	245,458
Collective deferred inflows related to lease receivable	4,668,725	-	4,668,725
Total deferred inflows of resources	4,799,341	128,011	4,927,352
Total liabilities and deferred inflows	19,076,961	37,456,079	56,533,040
NET POSITION			
Net investment in capital assets	4,423,669	30,198,992	34,622,661
Restricted	9,487,736	9,880,506	19,368,242
Unrestricted	2,966,187	5,078,385	8,044,572
Total net position	16,877,592	45,157,883	62,035,475
Total liabilities, deferred inflows and net position	$ 35,954,553	$ 82,613,962	$ 118,568,515

See accountant's compilation report and notes to financial statements.

Charles Town Utility Board

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

For the year ended June 30, 2025

	Water Fund	Sewer Fund	Totals
OPERATING REVENUES			
Sales and services to customers	$ 5,378,737	$ 7,358,774	$ 12,737,511
Total operating revenues	5,378,737	7,358,774	12,737,511
OPERATING EXPENSES			
Personal services	1,747,087	1,625,060	3,372,147
Contractual services	120,198	182,021	302,219
Administrative and general	225,667	387,622	613,289
Materials and supplies	521,821	532,409	1,054,230
Utilities	162,678	454,490	617,168
Maintenance	833,258	917,365	1,750,623
Technology, license fees and subscriptions	86,514	54,229	140,743
Depreciation and amortization	1,495,396	3,083,464	4,578,860
Total operating expenses	5,192,619	7,236,660	12,429,279
Operating income	186,118	122,114	308,232
NONOPERATING REVENUES (EXPENSES)			
Interest revenue	572,191	432,597	1,004,788
Interest and fiscal charges	(435,606)	(660,269)	(1,095,875)
Bond issuance costs	-	(40,650)	(40,650)
Gain (loss) on disposition of assets	8,160	(180,406)	(172,246)
Rental income	448,821	-	448,821
Nonoperating grant	38,000	-	38,000
Miscellaneous revenues	38,587	6,400	44,987
Total nonoperating revenues (expenses)	670,153	(442,328)	227,825
Income before contributed capital	856,271	(320,214)	536,057
CONTRIBUTED CAPITAL	2,176,454	3,602,877	5,779,331
Change in net position	3,032,725	3,282,663	6,315,388
Total net position at beginning of year	13,844,867	41,875,220	55,720,087
Total net position at end of year	$ 16,877,592	$ 45,157,883	$ 62,035,475

See accountant's compilation report and notes to financial statements.

Charles Town Utility Board
STATEMENT OF CASH FLOWS
For the year ended June 30, 2025

	Water Fund	Sewer Fund	Totals
CASH FLOWS FROM OPERATING ACTIVITIES:			
Cash received from customers	$ 5,401,747	$ 7,308,220	$ 12,709,967
Cash paid for operation and maintenance expenses	(3,756,717)	(4,159,477)	(7,916,194)
Net cash provided by operations	1,645,030	3,148,743	4,793,773
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:			
Acquisition and construction of capital assets	(424,842)	(3,521,347)	(3,946,189)
Proceeds from sale of capital assets	8,160	-	8,160
Proceeds from issuance of revenue bonds	-	237,336	237,336
Principal paid on revenue bonds	(1,013,647)	(1,292,549)	(2,306,196)
Interest paid on revenue bonds	(358,161)	(587,147)	(945,308)
Bond issuance costs paid	-	(40,650)	(40,650)
Principal paid on lease liability	(11,062)	(12,232)	(23,294)
Interest paid on lease liability	(7,081)	(7,148)	(14,229)
Bond administration fees paid	(5,294)	(50,224)	(55,518)
Customer advance deposit for construction	-	53,425	53,425
Customer advance deposit repayments for construction	-	(143,947)	(143,947)
Decrease (increase) in restricted assets, net	(2,306,420)	(821,694)	(3,128,114)
Contributed capital	1,855,234	4,193,060	6,048,294
Net cash used in capital and related financing activities	(2,263,113)	(1,993,117)	(4,256,230)
CASH FLOWS FROM INVESTING ACTIVITIES:			
Interest and miscellaneous non-operating income received	445,984	438,997	884,981
Rental income received	535,918	-	535,918
Repayment of City of Charles Town general fund advances	(10,180)	(2,636)	(12,816)
Net cash provided by investing activities	971,722	436,361	1,408,083
Net increase in cash and cash equivalents	353,639	1,591,987	1,945,626
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	1,146,489	2,756,194	3,902,683
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 1,500,128	$ 4,348,181	$ 5,848,309

See accountant's compilation report and notes to financial statements.

Charles Town Utility Board
STATEMENT OF CASH FLOWS (CONTINUED)
For the year ended June 30, 2025

	Water Fund	Sewer Fund	Totals
Operating income	$ 186,118	$ 122,114	$ 308,232
Adjustments to reconcile operating income to net cash provided by operating activities:			
Depreciation and amortization expense	1,495,396	3,083,464	4,578,860
Decrease (increase) in receivables	9,096	(37,325)	(28,229)
Decrease (increase) in accrued revenues	10,579	(5,114)	5,465
Decrease (increase) in prepaid expenses	(772)	(982)	(1,754)
Decrease (increase) in inventory	(67,139)	(9,599)	(76,738)
Decrease (increase) in collective net pension asset	(90,387)	(95,447)	(185,834)
Decrease (increase) in net OPEB asset	22,618	13,944	36,562
Decrease (increase) in deferred outflows	(87,650)	(87,598)	(175,248)
Increase (decrease) in accounts payable	(1,159)	28,909	27,750
Increase (decrease) in customer deposits	3,335	(8,115)	(4,780)
Increase (decrease) in accrued expenses	72,742	48,997	121,739
Increase (decrease) in deferred inflows	92,253	95,495	187,748
Net cash provided by operating activities	$ 1,645,030	$ 3,148,743	$ 4,793,773
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION			
Noncash investing, capital, and financing transactions:			
Developer contributed capital improvements	$ 321,220	$ 368,626	$ 689,846
Utility plant financed with accounts payable	43,438	848,571	892,009
Capital assets obtained through leases	11,762	15,970	27,732
Capital assets obtained through subscriptions	90,675	90,675	181,350
	$ 467,095	$ 1,323,842	$ 1,790,937
RECONCILIATION OF CASH			
Cash per statement of net position	$ 1,500,128	$ 4,348,181	$ 5,848,309
Cash per statement of cash flows	$ 1,500,128	$ 4,348,181	$ 5,848,309

See accountant's compilation report and notes to financial statements.

NOTE 1 - NATURE OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

NATURE OF BUSINESS

The Charles Town Utility Board (the "Utility Board") is a component unit of the Municipality of Charles Town, West Virginia. The Utility Board's purpose is furthering the preservation of the public health, comfort, and convenience of the residents of Charles Town, Ranson, and other franchised areas of Jefferson County, West Virginia, by providing water and sewer services to customers in its franchise area.

The Utility Board is governed by a board of directors who are appointed by the Municipality of Charles Town (3 appointments), the Jefferson County Commission (1 appointment), and the City of Ranson (1 appointment).

The Utility Board serves 7,473 water customers and 10,061 sewer customers. During the year ended June 30, 2025, the Utility Board's water customers increased by 443 and sewer customers increased by 971.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Governmental Accounting Standards Board is the accepted standard setting body for establishing governmental accounting and financial reporting principles. Significant accounting policies of the Utility Board are described below.

Reporting Entity

For financial reporting purposes, the Utility Board is considered a component unit of the Municipality of Charles Town. The basic criteria for defining the Utility Board as a component unit of the Municipality of Charles Town is the financial interdependence, accountability for fiscal matters, significant influence on operations and ability to designate management.

The Utility Board is a combined water and sewer utility. For purposes of establishing user rates and charges and as required by its revenue bond issues, water and sewer are maintained as separate funds with separate books of account.

Basis of Presentation

The accounting policies of the Utility Board conform to accounting principles generally accepted in the United States of America as applicable to enterprise funds of governmental units. The Utility Board accounts for its operations in a manner similar to those often found in the private sector. The measurement focus is based upon the determination of net income. The costs (including depreciation) of providing utility services to customers on a continuing basis are recovered primarily through user charges. Periodic determination of revenues earned, expenses incurred and/or net income is appropriate for capital maintenance, public policy, management control and accountability.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Basis of Accounting

Basis of accounting refers to when revenues and expenses are recognized in the accounts and reported in the financial statements. Revenues and expenses of the Utility Board are accounted for within two funds, both of which are enterprise funds. The Utility Board uses the accrual basis of accounting for its enterprise funds, under which revenues are recognized when they are earned and expenses are recognized when they are incurred.

Operating revenues and expenses consist of those revenues and expenses that result from the ongoing principal operations of the Utility Board. Operating revenues consist primarily of charges for services. Non-operating revenues and expenses consist of those revenues and expenses that are related to financing and investing types of activities and result from nonexchange or ancillary activities.

When both restricted and unrestricted resources are available for use, it is the Utility Board's policy to use restricted resources first, and then the unrestricted resources as needed. See Note 1 for information describing restricted assets.

Utility Plant

Utility plant purchased or acquired under financing arrangements by the Utility Board is stated at cost and utility plant contributed to the Utility Board by developers and customers is stated at fair market value at the time received. Depreciation is provided on all utility plant in service based on the estimated useful lives, which range from 5 to 50 years, using the straight-line method.

The Utility Board's policy for capitalization of property, plant, and equipment is as follows:

Equipment	$ 15,000
Real Property	
Land	$ 1
Land improvements	$ 15,000
Buildings (Structures)	$ 1
Construction in Progress	$ 15,000

Expenditures for repairs and upgrading which materially add to the value or life of an asset are capitalized. Other maintenance and repair costs are expensed as incurred.

Interest cost incurred before the end of a construction period is recognized as an expense in the period in which the cost is incurred.

The depreciation and amortization expense on assets acquired under financed purchases and leasing arrangements is included with deprecation and amortization expense on owned assets.

Cash and Cash Equivalents

For purposes of reporting the statement of cash flows, the Utility Board considers all unrestricted cash accounts and all highly liquid unrestricted debt instruments purchased with an original maturity of three months or less, to be cash equivalents.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Cash and Cash Equivalents (continued)

All deposits of the Utility Board are maintained in accounts collateralized in accordance with the West Virginia Security for Public Deposits Act, §12-1B-5 and §12-1B-7 et. seq. of the *Code of West Virginia* or covered by the Federal Deposit Insurance Corporation (FDIC). Under the Act, banks and savings institutions holding public deposits in excess of the amount insured by the FDIC must pledge collateral to the West Virginia State Treasurer. Financial institutions may choose between two collateralization methodologies: the Dedicated Single Bank Method and the Multibank Pooled Method. Depending upon the collateralization method used, pledge collateral shall range between 50% and 102% of excess deposits. Accordingly, all deposits are considered fully collateralized.

Restricted Assets

Assets whose use is limited include:

Debt service and debt service reserve funds represent funds required by debt covenants under the various debt ordinances. These funds are to be used to pay bond interest and principal.

Construction funds represent funds held by banks as trustees under bond ordinances or under developer contractual arrangements. These funds are to be used solely for payment of costs associated with the Utility Board's ongoing construction projects.

Capacity improvement funds are established by ordinance. Capacity improvement funds are kept apart from all other funds. Withdrawals and disbursements are made for improvements and upgrades to the system that maintain or increase capacity to service customers.

The repair and replacement funds represent funds held by a bank under the Utility Board's bond ordinances. Withdrawals may be made for replacement and emergency repairs.

Accounts Receivable and Bad Debts

The Utility Board's management periodically analyzes delinquent accounts of the water and sewer funds and uses the allowance method for accounting for bad debts. No allowance for doubtful accounts was deemed necessary by management at June 30, 2025. At June 30, 2025, accounts receivable for the water and sewer funds were $863 and $181,260, respectively, net of the allowance for doubtful accounts.

Revenue Recognition and Customer Rates and Charges

The Utility Board's policy is to recognize revenue on the accrual basis. The Utility Board accrues revenue earned but not billed. Revenue accrued but not billed for the water and sewer funds at June 30, 2025 were $451,953 and $610,387, respectively.

Deferred Outflows and Inflows of Resources

A deferred outflow of resources represents a consumption of net assets applicable to a future reporting period and will not be recognized as an expense until then. Deferred outflows from the refunding of debt will be recognized as interest expense in the appropriate reporting period. Deferred outflows related to the Utility Board's defined benefit pension and OPEB plans will be recognized based on actuarial determinations.

A deferred inflow of resources represents an acquisition of net assets applicable to a future reporting period and will not be recognized as revenue until then. Deferred inflows related to the Utility Board's defined benefit pension and OPEB plans will be recognized based on actuarial determinations. Deferred inflows related to leases receivable will be recognized on a straight-line basis over the terms of the related leases.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Advance Refunding of Debt

Deferred amounts resulting from advance refunding of debt are being amortized by the straight-line method over the life of the new debt.

Income Taxes

The Utility Board is exempt from federal and state income taxes as a subdivision of the Municipality of Charles Town.

Inventories

Inventories consist of expendable supplies and are accounted for on a first-in first-out basis. Inventories approximate fair market value at June 30, 2025.

Compensated Absences

The Utility Board's policy is to permit employees to accumulate earned but unused vacation and sick benefits subject to annual carryover limits. The Utility Board fully recognizes the liability related to compensated absences in the funds. For the water and sewer funds, compensated absences at June 30, 2025, amounted to $146,521 and $96,283, respectively. Vacation leave is paid out at employment separation. Sick leave is not paid out at employment separation.

Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Nonexchange Transactions

The Utility Board follows GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions* (Statement 33), which establishes accounting and reporting guidelines for government entities that gives (or receives) value without directly receiving (or giving) equal value in return. The Utility Board receives voluntary nonexchange transactions from donations of cash, property, lines and improvements. In addition, the Utility Board receives various capital grants from federal and state agencies. These grants and donations are considered capital contributions in the Statement of Revenues, Expenses and Changes in Net Position.

Customer Deposits

Customer deposits are refunded after bills for service have been paid on time for twelve consecutive months.

Net Position

Net position presents the difference between assets/deferred outflows and liabilities/deferred inflows in the statement of net position. Net investment in capital assets is reduced by the outstanding balances of any borrowing used for the acquisition, construction, or improvement of those assets. Net position is reported as restricted when legal limitations are imposed on its use by legislation or external restrictions by creditors, grantors, laws or regulations of other governments. Unrestricted net position is net position that does not meet the definition of "net investment in capital assets, or restricted net position."

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Interfund Transactions

Interfund transactions are reflected in the financial statements, as applicable, and recorded through "due to/due from" asset and liability accounts.

Pension

For purposes of measuring the net pension asset and deferred outflows/inflows of the resources related to the pension, and pension expense (offset), information about the fiduciary net position of the Utility Board's Public Retirement System (PERS) and additions to/deduction from the Plan's fiduciary net position have been determined on the same basis as they are reported by the PERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with benefit terms. Investments are reported at fair value.

Postemployment Benefits Other Than Pensions (OPEB)

For purposes of measuring the net OPEB asset and deferred outflows/inflows of the resources related to OPEB, and OPEB expense (offset), information about the fiduciary net position of the West Virginia Retiree Health Benefits Trust (RHBT) and additions to/deductions from the RHBT's fiduciary net position have been determined on the same basis as they are reported by the RHBT. RHBT recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value.

NOTE 2 - NEW ACCOUNTING PRONOUNCEMENT ADOPTED

The Utility Board has adopted the following GASB Pronouncements during the year ended June 30, 2025:

GASB Statement No. 101, *Compensated Absences*: This statement updates the recognition and measurement guidance for compensated absences and amends certain previously required disclosures.

GASB Statement No. 102, *Certain Risk Disclosures*: This statement defines and requires governments to disclose the risks related to concentrations of inflows of outflows of resources.

NOTE 3 - NEW ACCOUNTING PRONOUNCEMENTS

GASB Statement No. 103, *Financial Reporting Model Improvements*: This statement improves key components of the financial reporting model to enhance its effectiveness in providing information that is essential for decision making and assessing a government's accountability as well as addresses certain application issues. The requirements of this Statement are effective for reporting periods beginning after June 15, 2025.

GASB Statement No. 105, *Disclosure of Certain Capital Assets*: This statement requires certain types of capital assets to be disclosed separately in the capital assets note disclosures. Lease assets and intangible right-to-use assets should be disclosed separately by major class. Subscription assets recognized should also be separately disclosed. The requirements of this Statement are effective for reporting periods beginning after June 15, 2025.

The Utility Board has not determined the effects these GASB Statements may have on prospective financial statements.

NOTE 4 - FAIR VALUE OF FINANCIAL INSTRUMENTS

The Utility Board holds no investments and does not have an investment policy. The carrying amounts of the Utility Board's financial assets and liabilities approximate their fair value.

NOTE 5 - CASH

Cash consists of the following accounts and amounts at June 30, 2025:

	Water	Sewer	Total
Petty cash	$ 175	$ 125	$ 300
Operation and maintenance accounts	933,985	3,372,904	4,306,889
Security deposit accounts	117,772	219,746	337,518
Working capital reserve accounts	448,196	755,406	1,203,602
	$ 1,500,128	$ 4,348,181	$ 5,848,309

NOTE 6 - LEASES RECEIVABLE

Beginning in the year ended June 30, 2016, the Utility Board has entered into multiple cellular equipment right to use agreements for space on the Utility Board's water standpipes. The remaining terms of the lease agreements range from 2026-2050. Payments required under the lease agreements are variable based on the specific terms contained in the agreements. Minimum payments due the Utility Board for the next five years are as follows:

Year	Amount
2026	$ 467,210
2027	480,618
2028	494,965
2029	509,177
2030	523,810
	$ 2,475,780

Leases receivable were calculated using a discount rate of 3.5%. Leases receivable amounted to $5,526,695 at June 30, 2025. Collective deferred inflows related to the leases amount to $4,668,725 at June 30, 2025. The deferred inflows are being recognized in nonoperating revenues based on the terms of the leases using the straight-line method. The Utility Board recognized $383,114 of lease revenue and $202,794 of interest income on leases during the year ended June 30, 2025, which is included in nonoperating revenues in the Statement of Revenues, Expenses, and Changes in Financial Position.

NOTE 7 - CAPITAL ASSETS

	Balance at June 30, 2024	Other Additions	Reductions	Balance at June 30, 2025
Capital Assets Not Depreciated				
Land and land rights	$ 2,009,377	$ -	$ -	$ 2,009,377
Construction in progress	11,139,585	3,538,237	(12,322,884)	2,354,938
Total Capital Assets Not Depreciated	13,148,962	3,538,237	(12,322,884)	4,364,315
Capital Assets Depreciated				
Utility plant in service	119,553,237	13,590,753	(1,390,470)	131,753,520
Less accumulated depreciation	(48,595,761)	(4,578,860)	1,350,596	(51,824,025)
Net Capital Assets Depreciated	70,957,476	9,011,893	(39,874)	79,929,495
Total Capital Assets	$84,106,438	$ 12,550,130	$ (12,362,758)	$ 84,293,810
Depreciation Expense	$ 4,578,860			

NOTE 7 - CAPITAL ASSETS (continued)

The Utility Board has the following active construction projects as of June 30, 2025:

Project	Estimated Costs	Costs Incurred
Various Water Projects	$ 3,454,312	$ 289,355
Various Sewer Projects	$ 3,745,321	$ 290,021
Sewer Collection System Project	$ 7,817,024	$ 1,775,562

The above projects are being funded by bond proceeds, grant proceeds, and internal funding.

NOTE 8 - RIGHT TO USE ASSETS

Changes in right to use asset as of June 30, 2025 is as follows:

	Balance 6/30/2024	Increase	Decrease	Balance 6/30/2025
Right to use assets - office facility	$ 484,082	$ -	$ -	$ 484,082
- equipment	-	27,732	-	27,732
- software subscriptions	-	341,440	-	341,440
	484,082	369,172	-	853,254
Less: accumulated amortization	(108,750)	(140,532)	-	(249,282)
Total net right to use asset	$ 375,332	$ 228,640	$ -	$ 603,972

Amortization expense amounted to $140,532 for the year ended June 30, 2025.

NOTE 9 - LONG-TERM DEBT

The following is a summary of bonds payable at June 30, 2025:

Bonds Payable - Water Fund

Issue	Maturity Date	Interest Rates	Balance June 30, 2024	Additions	Payments	Balance June 30, 2025	Due Within One Year
1987B	2026	0.00%	$ 32,654	$ -	$ 10,885	$ 21,769	$ 10,885
1988B	2028	0.00%	71,528	-	14,308	57,220	14,308
1989B	2029	0.00%	18,075	-	3,012	15,063	3,012
2002A	2039	5.80%	746,387	-	29,555	716,832	31,269
2002B	2042	0.00%	1,683,117	-	93,506	1,589,611	93,507
2010A	2031	2.00%	349,412	-	48,843	300,569	49,828
2010B	2031	2.00%	38,293	-	5,353	32,940	5,461
2016A	2046	1.60%-4.50%	6,355,000		185,000	6,170,000	190,000
2018A-7	2046	0.50%	713,049	-	31,884	681,165	32,044
2020A	2043	2.00%-2.25%	1,659,100	-	171,550	1,487,550	173,900
2022A	2033	0.63%-1.63%	2,434,550	-	419,750	2,014,800	416,100
Total Bonds Payable			$ 14,101,165	$ -	$ 1,013,646	13,087,519	$ 1,020,314
				Unamortized Premiums/ Discounts, Net		14,052	
						$ 13,101,571	

Maturities of water bonds payable for years succeeding June 30, 2025, are as follows:

Year	Principal	Interest	Total
2026	$ 1,020,314	$ 343,292	$ 1,363,606
2027	1,004,150	327,419	1,331,569
2028	935,632	309,928	1,245,560
2029	904,274	290,674	1,194,948
2030	681,526	272,826	954,352
2031-2035	2,958,905	1,106,721	4,065,626
2036-2040	2,708,892	686,115	3,395,007
2041-2045	2,449,989	303,454	2,753,443
2046	423,837	15,053	438,890
	$ 13,087,519	$ 3,655,482	$ 16,743,001

NOTE 9 - LONG-TERM DEBT (continued)

Bonds Payable - Sewer Fund

Issue	Maturity Date	Interest Rates	Balance June 30, 2024	Additions	Payments	Balance June 30, 2025	Due Within One Year
1988B	2028	0.00%	$ 37,924	$ -	$ 7,588	$ 30,336	$ 7,588
2010C	2041	0.00%	708,316	-	41,668	666,648	41,668
2010D	2041	0.00%	283,316	-	16,668	266,648	16,668
2011A	2041	0.00%	4,256,336	-	250,373	4,005,963	250,373
2013A	2044	0.50%	409,229	-	19,252	389,977	19,348
2014A	2046	0.50%	3,002,654	-	131,014	2,871,640	131,670
2016B	2046	1.50%-4.00%	3,610,000	-	50,000	3,560,000	55,000
2018A-1	2029	0.00%	54,589	-	10,917	43,672	10,917
2018A-3	2038	1.00%	499,810	-	33,430	466,380	33,765
2018A-4	2030	0.00%	72,519	-	12,612	59,907	12,612
2018A-5	2032	0.00%	288,720	-	38,496	250,224	38,496
2018A-6	2039	0.00%	969,064	-	66,832	902,232	66,832
2018B	2033	2.25%-3.50%	2,160,000	-	195,000	1,965,000	205,000
2020A	2043	2.00%-2.25%	1,870,900	-	193,450	1,677,450	196,100
2022A	2033	0.63%-1.63%	900,450	-	155,250	745,200	153,900
2022B	2052	4.00%-4.375%	5620,000	-	-	5620,000	-
2022C	2036	4.40%-5.50%	1,715,000	-	70,000	1,645,000	70,000
2024A	2065	0.25%	-	237,336	-	237,336	-
Total Bonds Payable			$ 26,458,827	$ 237,336	$ 1,292,550	$ 25,403,613	$ 1,309,937
				Unamortized Premiums/ Discounts, Net		(110,535)	
						$ 25,293,078	

Maturities of sewer bonds payable for years succeeding June 30, 2025, are as follows:

Year	Principal	Interest	Total
2026	$ 1,309,937	$ 571,124	$ 1,881,061
2027	1,360,990	556,906	1,917,896
2028	1,428,785	541,238	1,970,023
2029	1,424,760	520,231	1,944,991
2030	1,352,808	496,408	1,849,216
2031-2035	6,026,475	2,051,026	8,077,501
2036-2040	5,099,657	1,482,913	6,582,570
2041-2045	3,941,136	995,338	4,936,474
2046-2050	2,499,065	472,667	2,971,732
2051-2052	960,000	59,811	1,019,811
	$ 25,403,613	$ 7,747,662	$ 33,151,275

NOTE 9 - LONG-TERM DEBT (continued)

Certain of the water and sewer revenue bonds require administrative and service fees to be paid to the governmental issuers and/or the Municipal Bond Commission. Administrative and service fees amounted to $5,294 and $50,224 for the water and sewer funds, respectively, for the year ended June 30, 2025. Administrative and service fees are not considered interest expense for rate establishment purposes and are not included in the above maturity schedules.

The water and sewer bond issues are secured by a lien on the revenues derived from the system and a statutory mortgage lien on the system.

The covenants contained in the water and sewer bond issues include a required debt service coverage ratio of 115%. The Utility Board met the required coverage for the year ended June 30, 2025.

The water and sewer bond issues require monthly deposits to the renewal and replacement fund equal to 2-1/2% of monthly gross revenues. The Utility Board's deposits, including necessary expenditures for renewals and replacements, exceeded this requirement for the year ended June 30, 2025.

NOTE 10 - LEASE COMMITMENTS

The Utility Board entered into a facility lease agreement with the Municipality of Charles Town on April 1, 2019, which expires on June 1, 2042. Monthly rental payments of $2,550 are required during the term of the lease including principal and interest at 3.5%. The related liability under the lease was $390,237 at June 30, 2025. The Utility Board recognized $13,975 of interest expense during the year ended June 30, 2025.

During the year ended June 30, 2025, the Utility Board entered into lease agreements for a plotter and copier. Annual rental payments of $6,924 are due under the leases through the year ended June 30, 2029 and include both principal and imputed interest at 10-11%. The related liability under the leases was $21,062 at June 30, 2025. The Utility Board recognized $255 of interest expense for the year ended June 30, 2025.

The following is a schedule of future minimum lease payments:

Year	Principal	Interest	Total
2026	$ 21,678	$ 15,847	$ 37,525
2027	22,787	14,737	37,524
2028	23,976	13,548	37,524
2029	25,248	12,276	37,524
2030	19,799	10,801	30,600
2031-2035	110,074	42,926	153,000
2036-2040	131,091	21,909	153,000
2041-2042	56,646	2,004	58,650
	$ 411,299	$ 134,048	$ 545,347

NOTE 11 - SUBSCRIPTION LIABILITY

During 2025, the Utility Board entered into IT contracts with Edmunds GovTech and AMCS - utility cloud for financial and asset management software, respectively.

The Edmunds GovTech subscriptions is for a 3 year period ending in fiscal year 2027. Total payments required amount to the following:

2025	$ 96,443
2026	64,447
2027	48,450
Total	$ 209,340

The AMCS - utility cloud subscription is for a 3 year period ending in the fiscal year 2027. Total payments required amount to the following:

2025	$ 72,500
2026	33,638
2027	34,815
Total	$ 140,953

The value of the right-to-use subscription asset balances and related amortization are disclosed in Note 8. The Utility Board used a 3.5% discount rate in determining the present value of the subscription liability.

The subscription liability consists of the following at June 30, 2025:

Year	Principal	Interest	Total
2026	$ 92,048	$ 6,037	$ 98,085
2027	80,450	2,816	83,266
Total	$ 172,498	$ 8,853	$ 181,351

NOTE 12 CHANGES IN LONG-TERM LIABILITIES OTHER THAN BONDS

	Balance June 30, 2024	Additions	Reductions	Balance June 30, 2025
Subscription liability	$ -	$ 341,439	$ 168,941	$ 172,498
Leases	406,860	27,732	23,293	411,299
Loan from Charles Town	474,187	-	12,816	461,371
Accrued compensated absences	123,397	10,407	-	133,804
Collective net pension liability (asset)	(4,788)	537,776	723,610	(190,622)
Net other post employment benefit liability (asset)	(36,562)	74,112	37,550	-
Total	$ 963,094	$ 991,466	$ 966,210	$ 988,350

NOTE 13 - EMPLOYEE RETIREMENT SYSTEM AND PLAN

Plan Description, Contribution Information, and Funding Policies

The Utility Board participates in the West Virginia Public Employees Retirement System (PERS), a state-wide, cost-sharing, multiple-employer defined benefit plan on behalf of Utility Board employees. The system is administered by agencies of the State of West Virginia and funded by contributions from participants, employers, and State appropriations, as necessary.

PERS is administered by the Consolidated Public Retirement Board (CPRB), which acts as a common investment and administrative agent for all of the participating employers. CPRB issues publicly available reports that include a full description of the pension plan regarding benefit provisions, assumptions and membership information that can be found on the CPRB website at www.wvretirement.com.

The following is a summary of eligibility factors, contribution methods, and benefit provisions:

Eligibility to participate:	All Utility Board full-time employees, except those covered by other pension plans
Authority establishing contribution obligations and benefit provisions:	West Virginia State Code Section 5-10d
Tier 1 Plan member's contribution rate:	4.50% (Employees hired before July 1, 2015)
Tier 2 Plan member's contribution rate:	6.00% (Employees hired after July 1, 2015)
Utility Board's contribution rate:	9.00% for fiscal year 2025
Period required to vest:	5 years for Tier 1 and 10 years for Tier 2
Benefits and eligibility for distribution:	Tier 1 A member who has attained age 60 and has earned 5 years or more of contributing service or age 55 if the sum of his/her age plus years of credited service is equal to or greater than 80. The final average salary (three highest consecutive years in the last 15) times the years of service times 2% equals the annual retirement benefit. Tier 2 Qualification for normal retirement is age 62 with 10 years of service or at least age 55 plus service years equal to 80 or greater. The final average salary is the average of the five consecutive highest annual earnings years out of the last fifteen years. The final average salary times the years of service times 2% equals the annual retirement benefit.
Deferred retirement portion:	No
Provisions for:	
Cost of living	No
Death benefits	Yes

NOTE 13 - EMPLOYEE RETIREMENT SYSTEM AND PLAN (continued)

Trend Information

Fiscal Year	Annual Pension Cost	Percentage Contributed
2025	$216,736	100%
2024	$197,759	100%
2023	$169,889	100%

PERS issues a publicly available financial report that includes financial statements and required supplementary information. That information may be obtained by writing to the Public Employees' Retirement System, 4101 MacCorkle Avenue, SE, Charleston, WV 25304.

Pension Asset, Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pension

At June 30, 2025, the Utility Board reported the following asset for its proportionate share of the net pension asset. The net pension asset was measured as of June 30, 2024, and the total pension liability used to calculate the net pension asset was determined as of that date. The Utility Board's proportion of the net pension asset was based on a projection of the Utility Board's long-term share of contributions to the pension plan relative to the projected contributions of all participating governments, actuarially determined. At June 30, 2024, the Utility Board reported the following proportion:

Amount for proportionate share of net pension asset	$190,622
Percentage for proportionate share of net pension asset	0.115797%
Increase/(decrease) % from prior proportion measured	0.008967%

For the year ended June 30, 2025, the Utility Board recognized the following pension expense:

	Water	Sewer	Total
Pension expense	$ 46,664	$ 50,796	$ 97,460

NOTE 13 - EMPLOYEE RETIREMENT SYSTEM AND PLAN (continued)

Pension Asset, Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pension (continued)

The Utility Board reported deferred outflows of resources and deferred inflows of resources related to the pension plan from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Net difference between projected and actual earnings on pension plan investments	$ -	$ 221,909
Difference between expected and actual experience	258,977	-
Changes in proportion and differences between Utility Board contributions and proportionate share of contributions	3,872	6,096
Change in assumptions	-	17,453
Utility Board contributions subsequent to the measurement date	216,736	-
	$ 479,585	$ 245,458

The amount reported as deferred outflows of resources related to the pension plan resulting from Utility Board contributions subsequent to the measurement date will be recognized as a increase of the net pension asset in the year ending June 30, 2026. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the pension plan will be recognized in pension expense as follows:

Year ended June 30	
2026	$ (96,152)
2027	274,911
2028	(82,144)
2029	(79,224)
Total	$ 17,391

NOTE 13 - EMPLOYEE RETIREMENT SYSTEM AND PLAN (continued)

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of July 1, 2023, and rolled forward to June 30, 2024, which is the measurement date, using the following actuarial assumptions, applied to all periods included in the measurement.

Actuarial cost method	Individual entry age normal cost with level percentage of payroll
Asset valuation method	Market value
Amortization method	Level dollar, fixed period
Amortization period	Through Fiscal Year 2035
Actuarial assumptions:	
Investment rate of return	7.25%, net of investment expense
Projected salary increases:	
State	2.75% - 5.55%
Nonstate	3.60% - 6.75%
Inflation rate	2.75%
Discount rate	7.25%
Mortality rates	*Active* - 100% of Pub-2010 General Employees Table, below-median, headcount weighted, projected generationally with scale MP-2018 *Healthy Male Retirees* - 108% of Pub-2010 General Retiree Male Table, below-median, headcount weighted, projected generationally with Scale MP-2018 *Healthy Female Retirees* - 122% of Pub-2010 General Retiree Female Table, below-median, headcount weighted, projected generationally with Scale MP-2018 *Disabled Males* - 118% of Pub-2010 General/Teachers Disabled Male Table, headcount weighted, projected generationally with scale MP-2018 *Disabled Females* - 117% of Pub-2010 General/Teachers Disabled Female Table, headcount weighted, projected generationally with scale MP-2018 *Beneficiary Males* - 112% of Pub-2010 Contingent Survivor Male Table, below-median, headcount weighted, projected generationally with Scale MP-2018 *Beneficiary Females* - 115% of Pub-2010 Contingent Survivor Female Table, below-median, headcount weighted, projected generationally with Scale MP-2018
Withdrawal rates:	
State	2.28% - 45.63%
Non-state	2.50% - 35.88%
Disability rates	0.005% - 0.540%
Retirement rates	12% - 100%
Date range in most recent experience study	2015-2020 - Economic assumptions; 2013-2018 - All other assumptions

NOTE 13 - EMPLOYEE RETIREMENT SYSTEM AND PLAN (continued)

Actuarial Assumptions (continued)

Based upon a determination of the appropriate risk tolerance, the Retirement Board adopted the following broad asset allocation guidelines for the assets managed for PERS. Base and Strategic Allocations are established on a fair value basis:

Asset Class	Base Allocation	Strategic Allocation
Equity	60.00%	45.00%
Fixed Income	40.00%	15.00%
Private Credit and Income	0.00%	6.00%
Private Equity	0.00%	12.00%
Real Estate	0.00%	12.00%
Hedges Funds	0.00%	10.00%
Total	100.00%	100.00%

Discount Rate

The discount rate used to measure the total pension liability was 7.25 percent for the defined benefit plan. The projection of cash flows used to determine the discount rate assumed that employee/employer contributions will continue to follow the current funding policies. Based on those assumptions, the fiduciary net position for the defined benefit pension plan was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rates of return on pension plan investments were applied to all periods of projected benefit payments to determine the total pension liability of the plan.

The following chart presents the sensitivity of the net pension asset to changes in the discount rate, calculated using the discount rates as used in the actuarial evaluation, and what the net pension asset would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate:

	1% Decrease 6.25%	Current Discount Rate 7.25%	1% Increase 8.25%
Utility Board's proportionate share of net pension asset (liability)	$ (970,077)	$ 190,622	$ 1,170,815

Detailed information about the pension plan's fiduciary net position is available in the separately issued financial report available at the Consolidated Public Retirement Board's website at www.wvretirement.com. That information can also be obtained by writing to the West Virginia Consolidated Public Retirement Board, 4101 MacCorkle Avenue SE, Charleston, WV 25304.

NOTE 13 - EMPLOYEE RETIREMENT SYSTEM AND PLAN (continued)

Summary of Deferred Outflow/Inflow Balances

	Total	Water	Sewer
Difference between expected and actual experience	$ 258,977	$ 128,425	$ 130,552
Net difference between projected and actual earnings on pension plan investments	(221,909)	(106,251)	(115,658)
Changes in proportion and differences between Utility Board contributions and proportionate share of contributions	(2,224)	993	(3,217)
Change in assumptions	(17,453)	(8,357)	(9,096)
Utility Board contributions subsequent to the measurement date	216,736	109,179	107,557
	$ 234,127	$ 123,989	$ 110,138

NOTE 14 - WEST VIRGINIA PLUS DEFERRED COMPENSATION PLAN

The Utility Board has adopted a Section 457(b) deferred compensation plan for all eligible employees. The plan is administered by the West Virginia State Treasurer's Office. The Utility Board contributes 1% of an eligible employee's base wages to the Plan. In addition, the Utility Board matches up to 3% (including the 1% initial contribution) of employee base wage contributions. The Utility Board contributions for the year ended June 30, 2025 amounted to $44,410.

NOTE 15 - POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB)

Plan Description

The Utility Board contributes to the West Virginia Other Postemployment Benefit Plan (The Plan), a cost-sharing, multiple-employer defined benefit other postemployment benefit plan. And covers the retirees of State agencies, colleges and universities, county boards of education and other government entities as set forth in the West Virginia Code Section 5-16D-2 (The Code). The financial activities of the Plan are accounted for in the West Virginia Retiree Health Benefit Trust Fund (RHBT), a fiduciary fund of the State of West Virginia. The Plan is administered by a combination of the West Virginia Public Employees Insurance Agency (PEIA) and the RHBT staff. Plan benefits are established and revised by the PEIA and the RHBT management with approval of the Finance Board.

The Finance Board is comprised of ten members. Finance Board members are appointed by the Governor, serve a term of four years and are eligible for reappointment. The State Department of Administration cabinet secretary, or designee, serves as Chairman of the Board and is a voting member. One member represents the hospitals, one member represents the non-hospital health care providers, four members represent labor, education, public employees and public retirees and the four remaining members represent the public at large.

NOTE 15 - POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB) (continued)

Plan Description (continued)

The Plan had approximately 43,000 policyholders and 62,000 covered lives at June 30, 2024.

Active employees who retire are eligible for the PEIA health and life benefits, provided they meet the minimum eligibility requirements of the applicable State retirement system and if their last employer immediately prior to retirement: is a participating employer under the Consolidated Public Retirement Board (CPRB) and, as of July 1, 2008 forward, is a participating employer with the PEIA. Active employees who, as of July 1, 2008 have ten years or more of credited service in the CPRB and whose employer at the time of their retirement does participate with CPRB, but does not participate with the PEIA will be eligible for PEIA retiree coverage provided: they otherwise meet all criteria under this heading and their employer agrees, in writing, upon a form prescribed by the PEIA, that the employer will pay to the PEIA the non-participating retiree premium on behalf of the retiree or retirees, or that the retiree agrees to pay the entire unsubsidized premium themselves. Active employees who are members of the Teacher's Defined Contribution Retirement plan must be either: 55 years of age and have 12 or more years of credited service; or be at least 60 years of age with five years of service; and their last employer immediately prior to retirement must be a participating employer under that, or the CPRB system to qualify to continue PEIA insurance benefits upon retirement. Employees who participate in non-State retirement systems by are CPRB system affiliated, contracted, or approved (such as TIAA-CREF and similar plans), or are approved, in writing, by the PEIA Director must, in the case of education employees, meet the minimum eligibility requirements of the State Teacher's Retirement System and in all other cases meet the minimum eligibility requirements of the Public Employees Retirement System to be eligible for PEIA benefits as a retiree.

For additional financial information, which may be used for disclosure by participating employers, please refer to the audited financial statements of the RHBT. The RHBT audited financial statements and actuarial reports can be found on the PEIA website at www.peia.wv.gov. If you have any questions about this report or need additional information, contact the RHBT Controller, Jennifer Priddy, at 304-352-0298, ext. 20298. You can also submit your questions in writing to the West Virginia Public Employees Insurance Agency, 601 57th Street, SE, Suite 2, Charleston WV 25304.

Benefits Provided

The Plan provides medical, prescription drug insurance and life insurance. The medical and prescription drug insurance is provided through two options: 1) Self-Insured Preferred Provider Benefit Plan (primarily for non-Medicare-eligible retirees and spouses) and 2) External Managed Care Organizations (primarily for Medicare-eligible retirees and spouses).

Contributions

Employer contributions were from the RHBT billing system, called Web Contribution System, for fiscal year ended June 30, 2024. The employer contributions which were the basis of the related schedules represent what the employer was billed during the respective year for their portion of the pay as you go premiums, commonly referred to as paygo, retiree leave conversion billings, and other matters including billing adjustments.

Paygo premiums are established by the Finance Board annually. All participating employers are required by statute to contribute this premium to the RHBT at the established rate for every active policyholder per month. In fiscal year 2024, there was no subsidization of the retirees' healthcare from paygo premiums. RHBT had significant savings with the Humana contract renewal beginning fiscal years 2022 through 2025. In addition to the Humana contract savings, RHBT experienced favorable investment returns in fiscal year 2021, resulting in an excess in the premium stabilization reserve. RHBT passed on these savings to PEIA active employers by

NOTE 15 - POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB) (continued)

Contributions (continued)

not billing paygo in fiscal year 2024. The 5 year financial plan, which was passed by the Board in December 2021, originally had paygo to be billed at $20M for fiscal year 2024. The prior year paygo rate for fiscal year 2023 was $70 per active health policy per month.

Contributions to the OPEB plan from the Utility Board were as follows:

Year	Water	Sewer	Total
2025	$ 7,137	$ 5,670	$ 12,807
2024	$ -	$ -	$ -
2023	$ 11,849	$ 11,321	$ 23,170

Members retired before July 1, 1997 pay retiree healthcare contributions at the highest sponsor subsidized rate, regardless of their actual years of service. Members retired between July 1, 1997 and June 30, 2010, pay a subsidized rate depending on the member's years of service. Members hired on or after July 1, 2010, pay retiree healthcare contributions with no sponsor provided implicit or explicit subsidy.

Retiree leave conversion contributions from the employer depend on the retiree's date of hire and years of service at retirement as described below:

- Members hired before July 1, 1988, may convert accrued sick or leave days into 100% of the required retiree healthcare contributions.
- Members hired from July 1, 1988 to June 30, 2001, may convert accrued sick or leave days into 50% of the required retiree healthcare contribution.

The conversion rate is two days of unused sick and annual leave days per month for single healthcare coverage and three days of unused sick and annual leave days per month for family healthcare coverage.

OPEB Assets, OPEB Expense (offset), and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

At June 30, 2025, the Utility Board reported an asset of $0 and $0 for the water and sewer funds, respectively, for its proportionate share of the net OPEB asset. The net OPEB asset, deferred inflows and outflows of resources, and OPEB expense were determined by an actuarial valuation date as of June 30, 2023, rolled forward to June 30, 2024, which is the measurement date. The Utility Board's proportion of the net OPEB asset was based on a projection of the Utility Board's long-term share of contributions to the OPEB plan relative to the projected contributions of all participating governments, actuarially determined. At June 30, 2024, the Utility Board's proportionate share was 0.00%, which was a decrease of 0.023104081% from its proportion measured as of June 30, 2023.

For the year ended June 30, 2025, the Utility Board recognized OPEB expense (offset) of $3,678 and $(13,523) for the water and sewer funds, respectively.

NOTE 15 - POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB) (continued)

***OPEB Assets, OPEB Expense (offset), and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB* (continued)**

The Utility Board reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes in proportion and differences between Utility Board contributions and proportionate share of contributions	$ 3,091	$ 13,169
Utility Board contributions subsequent to the measurement date	12,807	-
	$ 15,898	$ 13,169

The amount reported as deferred outflows of resources related to OPEB resulting from Utility Board contributions subsequent to the measurement date will be recognized as an increase of the net OPEB asset in the year ended June 30, 2026. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense (offset) as follows:

Year Ended June 30:	
2026	$ (9,783)
2027	(862)
2028	567
Total	$ (10,078)

NOTE 15 - POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB) (continued)

OPEB Assets, OPEB Expense (offset), and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB (continued)

Actuarial Assumptions

The total OPEB asset, deferred inflows of resources, deferred outflows of resources and OPEB expense were determined by an actuarial valuation as of June 30, 2023, and was based on a measurement date of June 30, 2024:

Inflation rate	2.50%
Wage inflation	2.75%
Investment rate of return	7.40%, net of OPEB plan investment expense, including inflation
Asset valuation method	Market value
Actuarial cost method	Entry age normal cost method
Amortization Method	Level percentage of payroll over a 20-year closed period beginning June 30, 2017
Salary increases	Rates based on 2015-2020 OPEB experience study and dependent on pension plan participation and attained age, and range from 2.75% to 5.18%, including inflation. Rates were first applied to the 2020 valuation.
Retirement age	Rates based on 2015-2020 OPEB experience study and vary by pension plan participation and age/service at retirement. Rates first applied to the 2020 valuation.
Aging factors	Based on the 2013 SOA Study "Health Care Costs-From Birth to Death"
Mortality	Post Retirement: TRS: Pub-2010 General Healthy Retiree Mortality Tables (100% males, 108% females) projected with MP-2021. PERS: Pub-2010 General Below-Median Healthy Retiree Tables (106% males, 113% females) projected with MP-2021. Troopers A and B: Pub-2010 Public Safety Healthy Retiree Mortality Tables (100% males, 100% females) projected with Scale MP-2021. Pre Retirement: TRS: Pub-2010 General Employee Mortality Tables (100% males, 100% females) projected with Scale MP-2021. PERS: Pub-2010 Below-Median Income General Employee Mortality Tables projected with Scale MP-2021. Troopers A and B: Pub-2010 Public Safety Employee Mortality Tables projected with Scale MP-2021.
Healthcare cost trend rates	Trend rate for pre-Medicare and Medicare per capita costs of 5.0% medical and 8.0% drug. The trends increase over four years to 7.0% and 9.5%, respectively. The trends then decrease linearly for 5 years until ultimate trend rate of 4.50% is reached in plan year end 2033.
Expenses	Health administrative expenses are included in the development of the per capita claims cost. Operating expenses are included as a component of the annual expense.

NOTE 15 - POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB) (continued)

OPEB Assets, OPEB Expense (offset), and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB (continued)

Actuarial Assumptions (continued)

The actual assumptions used in the June 30, 2023 valuation were based on the results of an actuarial experience study for the period July 1, 2015 through June 30, 2020.

The long-term expected rate of return of 7.40% was determined by a combination of expected long-term rate of return of 7.60% for long-term assets invested with the WV Investment Management Board and an expected short-term rate of return of 2.75% for assets invested with the West Virginia Board of Treasury Investments.

Long-term pre-funding assets are invested with the WVIMB. The strategic asset allocation consists of 45% equity, 15% fixed income, 6% private credit and income, 12% private equity, 10% hedge fund and 12% real estate invested. Short-term assets used to pay current year benefits and expenses are invested with the WVBTI.

The long-term rates of return on OPEB plan investments are determined using a building-block method in which best estimate ranges of expected future rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future rates of return by the target asset allocation percentage. Target asset allocations, capital market assumptions (CMA), and forecast returns were provided by the Plan's investment advisors, including West Virginia Management Board (WVIMB). The projected return for the Money Market Pool held with the West Virginia Board of Treasury Investments (WVBTI) was estimated based on WVIMB assumed inflation of 2.50% plus a 25 basis point spread.

The target allocation and estimates of annualized log-term expected real returns assuming a 10-year horizon are summarized below:

Asset Class	Long-Term Expected Real Rate of Return
Equity	7.4%
Fixed Income	3.9%
Private Credit and Income	7.4%
Private Equity	10.0%
Real Estate	7.7%
Hedge Funds	4.5%

Discount Rate

A single discount rate of 7.40% was used to measure the total OPEB liability. This single discount rate was based on the expected rate of return on OPEB plan investments of 7.40%. The projection of cash flows used to determine this single discount rate assumed that employer contributions will be made in accordance with prefunding and investment policies. Based on these assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability

NOTE 15 - POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB) (continued)

***OPEB Asset, OPEB Expense (Offset), and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB* (continued)**

Sensitivity of the Utility Board's Proportionate Share of the Net OPEB Liability (Asset) to Changes in the Discount Rate

The following chart presents the Utility Board's proportionate share of the net OPEB liability (asset), as well as what the proportionate share of the net OPEB liability (asset) would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current discount rate:

	1% Decrease 6.40%	Discount Rate 7.40%	1% Increase 8.40%
Net OPEB liability (asset)	$ -	$ -	$ -

Sensitivity of the Utility Board's Proportionate Share of the Net OPEB Liability (Asset) to Changes in the Healthcare Cost Trend Rates

The following chart presents the Utility Board's proportionate share of the net OPEB liability (asset), as well as what the proportionate share of the net OPEB asset would be if it were calculated using healthcare cost trend rates that are 1 percentage point lower or 1 percentage point higher than the current healthcare cost trend rates described in the actuarial assumptions:

	1% Decrease	Healthcare Cost Trend Rates	1% Increase
Net OPEB liability (asset)	$ -	$ -	$ -

OPEB Plan Fiduciary Net Position

Detailed information about the OPEB plan's fiduciary net position is available in the separately issued financial report available at the West Virginia Public Employee Insurance Agency's website at peia.wv.gov. That information can also be obtained by writing to the West Virginia Public Employee Insurance Agency, 601 57th Street, Suite 2, Charleston, WV 25304.

Summary of Deferred Outflow/Inflow Balances

	Total	Water	Sewer
Changes in proportion and differences between Utility Board contributions and proportionate share of contributions	$ (10,078)	$ (10,038)	$ (40)
Utility Board contributions subsequent to the measurement date	12,807	7,137	5,670
	$ 2,729	$ (2,901)	$ 5,630

NOTE 16 - RISK MANAGEMENT

The Utility Board is exposed to various risks of loss related to torts, theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Utility Board participates in several risk management programs administered by the State of West Virginia.

NOTE 17 - LOAN FROM MUNICIPALITY OF CHARLES TOWN

The Municipality of Charles Town loaned the Utility Board $640,795 to finance certain water and sewer construction projects. The loans bear no interest and are generally being repaid over a 50 year term. Annual required loan payments amount to $12,816. The loan balances are $363,480 and $97,891 for the water and sewer departments, respectively, at June 30, 2025.

NOTE 18 - RESTRICTED NET ASSETS

Restricted net assets reflect that portion of total net assets legally or contractually segregated for a specific future use. The following amounts represent restricted net assets at June 30, 2025:

Cash and temporary investments	
Debt service and debt service reserve funds	$ 988,070
Repair and replacement funds	1,859,084
Capacity improvement funds	16,664,163
Accrued interest	(143,075)
Total	$ 19,368,242

NOTE 19 - COMMITMENTS AND CONTINGENCIES

Alternate Mainline Extension Agreements

The Utility Board has entered into alternate mainline extension agreements with customers (developers) for certain sewer improvements to provide sewer service to the customers (developers). The customers (developers) have agreed to pay for the improvements and the Utility Board is required to reimburse the customers (developers) to the extent that new connections are made to the improvements during specified time periods. After the time periods lapse, remaining customer advance balances will be converted to contributed capital.

Customer advances for construction under alternate mainline extension agreements amounted to $10,284,713 at June 30, 2025. The Utility Board reimbursed $143,947 of advances to customers (developers) under the agreements for the year ended June 30, 2025.

NOTE 20 - CONTRIBUTED CAPITAL

A summary of contributed capital for the year ended June 30, 2025 is as follows:

	Water	Sewer	Total
Capacity improvement fees received from customers and developers	$1,855,234	$3,234,251	$5,089,485
Contributed capital received from customers, developers, and grantor agencies	321,220	368,626	689,846
Total	$2,176,454	$3,602,877	$5,779,331

NOTE 21 - SUBSEQUENT EVENTS

The Utility Board has evaluated all subsequent events through January 15, 2026, the date the financial statements were available to be issued.

REQUIRED SUPPLEMENTARY INFORMATION

Charles Town Utility Board
SCHEDULES OF THE UTILITY BOARD'S PROPORTIONATE SHARE OF THE COLLECTIVE NET PENSION LIABILITY (ASSET)
June 30, 2025

Public Employees Retirement System
Last 10 Fiscal Years

	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Utility Board's proportionate share of the net pension liability (asset) (%)	0.115797%	0.106830%	0.117261%	0.115256%	0.114800%	0.105962%	0.122021%	0.091775%	0.09351%	0.0858%
Utility Board's proportionate share of the net pension liability (asset) ($)	$ (190,622)	$ (4,788)	$ 174,624	$(1,011,874)	$ 606,914	$ 260,340	$ 315,120	$ 396,145	$ 859,464	$ 479,022
Utility Board's covered-employee payroll	$ 2,405,182	$ 2,144,733	$ 1,887,662	$ 1,898,244	$ 1,839,277	$ 1,764,571	$ 1,777,610	$ 1,249,466	$ 1,244,131	$ 1,289,097
Utility Board's proportionate share of net pension liability (asset) as a % of its covered-employee payroll	-7.93%	-0.22%	9.25%	-53.31%	33.00%	14.75%	17.73%	31.71%	69.08%	37.16%
Plan fiduciary net position as a percentage of the total pension liability	101.85%	100.05%	98.17%	111.07%	92.89%	96.99%	96.33%	99.56%	86.11%	91.29%

Note: The amounts presented for each fiscal year were determined as of June 30th.

Charles Town Utility Board
SCHEDULES OF THE UTILITY BOARD'S PENSION PLAN CONTRIBUTIONS
June 30, 2025

Public Employees Retirement System
Last 10 Fiscal Years

	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Contractually required contribution	$ 216,736	$ 197,759	$ 169,889	$ 189,824	$ 183,928	$ 176,926	$ 155,565	$ 137,439	$ 149,296	$ 174,028
Contributions in relation to the contractually required contribution	(216,736)	(197,759)	(169,889)	(189,824)	(183,928)	(176,926)	(155,565)	(137,439)	(149,296)	(174,028)
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Utility Board's covered-employee payroll	$2,405,182	$2,144,733	$1,887,662	$1,898,244	$1,839,277	$1,764,571	$1,555,646	$ 1,249,446	$1,244,131	$1,289,097
Contributions as a percentage of covered-employee payroll	9.0%	9.2%	9.0%	10.0%	10.0%	10.0%	10.0%	11.0%	12.0%	13.5%

Note: The amounts presented for each fiscal year were determined as of June 30th.

Charles Town Utility Board
SCHEDULES OF THE UTILITY BOARD'S PROPORTIONATE SHARE OF THE NET OPEB LIABILITY (ASSET)
For the year ended June 30, 2025

Public Employees Insurance Agency

	2025	2024	2023	2022	2021	2020	2019	2018	2017
Utility Board's proportion of the net OPEB liability (asset)	0.000000000%	0.023104081%	0.025842103%	0.030006865%	0.028943312%	0.026558014%	0.028583397%	0.018956336%	0.022773022%
Utility Board's proportionate share of the net OPEB liability (asset)	$ -	$ (36,562)	$ 28,762	$ (8,922)	$ 127,840	$ 511,370	$ 613,238	$ 466,134	$ 565,528
Utility Board's covered-employee payroll	$ 2,405,182	$ 2,144,733	$ 1,887,662	$ 1,898,244	$ 1,839,277	$ 1,764,571	$ 1,777,610	$ 1,248,678	$ 1,173,454
Utility Board's proportionate share of the net OPEB liability (asset) as a percentage of its covered-employee payroll	0.00%	-1.70%	1.52%	-0.47%	6.95%	28.98%	34.50%	37.33%	48.19%
Plan fiduciary net position as a percentage of the total OPEB liability	102.19%	100.05%	93.59%	101.81%	73.49%	39.69%	30.98%	25.10%	21.64%

Note - This data will be presented prospectively until ten years is accumulated.
The amounts presented for each fiscal year were determined as of June 30th.

Charles Town Utility Board
SCHEDULES OF THE UTILITY BOARD OPEB PLAN CONTRIBUTIONS
For the year ended June 30, 2025

Public Employees Insurance Agency

	2025	2024	2023	2022	2021	2020	2019	2018	2017
Contractually required contribution	$ 12,807	$ -	$ 23,170	$ 30,384	$ 54,720	$ 55,761	$ 55,081	$ 41,772	$ 38,936
Contributions in relation to the contractually required contribution	(12,807)	-	(23,170)	(30,384)	(54,720)	(55,761)	(55,081)	(41,772)	(38,936)
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Utility Board's covered-employee payroll	$2,405,182	$2,144,733	$1,887,662	$1,898,244	$1,839,277	$1,764,571	$1,555,565	$1,248,678	$1,173,454
Contributions as a percentage of covered-employee payroll	0.53%	0.00%	1.23%	1.60%	2.98%	3.16%	3.54%	3.35%	3.32%

Note - This data will be presented prospectively until ten years is accumulated.
The amounts presented for each fiscal year were determined as of June 30th.

PENSION DATA

PERS

A. Changes in Assumptions

Experience studies are performed at least once in every 5-year period. This valuation was prepared on the basis of assumptions that were recommended to and adopted by the Board based on the experience study covering the period from July 1, 2013, to June 30, 2018. These assumptions will remain in effect for valuation purposes until such time as the Board adopts revised demographic assumptions.

The valuation reflects economic assumptions, which include a rate of investment return of 7.25% per annum, as adopted by the Board, and assumed future salary increases, which were based on the findings presented in the July 1, 2015 - June 30, 2020, Experience Study. These assumptions will remain in effect for valuation purposes until the Board adopts revised economic assumptions.

B. Net Pension Liability

The components of the net pension liability as of June 30, 2023, are as follows (in thousands):

Total Pension Liability	$ 8,898,186
Plan Fiduciary Net Position	(9,062,803)
Net Pension (Asset) Liability	$ (164,617)
Plan Fiduciary Net Position as a percentage of the total pension liability	101.85%

OPEB DATA

A. Net OPEB Liability

The components of the net OPEB asset as of June 30, 2023, are as follows:

Total OPEB Liability	$ 1,903,880,796
Plan Fiduciary Net Position	1,945,516,893
Net OPEB (Asset) Liability	$ (41,636,097)
Plan Fiduciary Net Position as a percentage of the total OPEB liability	102.19%

Charles Town
Utility Board

661 S. George Street, Suite 101 Charles Town, WV 25414
Phone: (304) 725-2316 ♦ Fax: (304) 725-7150 ♦ Web: www.ctubwv.com

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January 21, 2026

Mr. Dan Mace
Bureau for Public Health
Office of Environmental Health Services
Environmental Engineering Division – Data Management
350 Capitol Street, Room 313
Charleston, WV 25301-3713

Re: Notification of Corrosion Control Inhibitor Conversion and Request for Continued Monitoring Approach

Dear Mr. Mace,

In accordance with the Lead and Copper Rule Improvements (LCRI), 40 CFR Part 141 Subpart I, and applicable West Virginia Bureau for Public Health requirements, the Charles Town Utility Board (CTUB) hereby provides formal notification of a planned optimization to its corrosion control treatment program. CTUB proposes to convert its corrosion control inhibitor from Coyne Chemical Zinc Orthophosphate to AquaSmart SeaQuest, a blended polyphosphate product.

This conversion is intended to enhance existing corrosion control performance and does not represent a reduction or removal of optimal corrosion control treatment. CTUB anticipates that the proposed inhibitor will provide equal or improved protection against lead and copper release from premise plumbing materials while maintaining stable and consistent water quality conditions throughout the distribution system.

Based on product performance data, peer utility experience, and CTUB's system-specific water quality history, the proposed conversion is not expected to result in adverse impacts to water quality or corrosion control effectiveness. The treatment change is being implemented in a controlled manner to ensure continued optimization of corrosion control, protection of public health and increased water quality.

CTUB anticipates the following outcomes from this conversion:

- Continued and Enhanced Corrosion Control: The selected inhibitor is expected to support protective scale formation and sequestration primarily due to CTUB's high hardness source water, minimizing lead and copper release at the tap and supporting compliance with the LCRI lead action level.

- Water Quality Stability: The blended formulation is expected to maintain consistent corrosion control performance across normal operational and seasonal water quality variability. The product should also reduce distribution system flushing durations and help maintain free chlorine residual concentrations.
- Regulatory Consistency: The proposed conversion aligns with the intent of the LCRI and does not constitute a significant treatment technique change that would compromise optimal corrosion control.
- Public Health Protection: CTUB remains committed to maintaining drinking water quality that is protective of public health at all times.

The conversion is scheduled to begin on or about March 16, 2026 and is anticipated to be completed on or about March 20, 2026. CTUB does not anticipate any disruption to water service or degradation of water quality during this transition.

CTUB has maintained consistent compliance with Lead and Copper Rule monitoring requirements, including annual monitoring at thirty (30) Tier 1 sampling sites. Historical monitoring data demonstrate stable and compliant lead and copper results under existing corrosion control conditions. Given this demonstrated performance and the successful implementation of this inhibitor by proximate utilities with similar system characteristics, CTUB respectfully requests approval to continue its current Lead and Copper monitoring schedule during the conversion period and into the future barring any unexpected exceedances.

CTUB does not anticipate that increased monitoring frequency would provide additional public health benefit or yield data beyond that already available to the State. However, CTUB remains committed to ongoing evaluation of water quality conditions and will promptly notify the Bureau should any unexpected changes or concerns arise during or following the conversion.

CTUB welcomes continued coordination with the Bureau and will provide any additional technical documentation, product specifications, or operational data upon request. We appreciate the Bureau's continued oversight and partnership in ensuring the delivery of safe, reliable, and high-quality drinking water to our customers.

Sincerely,

Kristen M. Stolipher
Utility Manager
Charles Town Utility Board

GWIN, DOBSON, AND FOREMAN COUPON STUDY

Henry Crossley

DECEMBER 23, 2025

ACQUSMART, INC
3710 Atlanta Ind Pkwy Suite 200, Atlanta, GA 30331

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Testing Requested By

Aidan Kelly, Regional Sales Manager

Water Samples

1. Incumbent Water
    a. Finished Water
2. SeaQuest Treatment Water
    a. Pre-Ortho Water

Method

1. SeaQuest Determination

Sample Name	**Hardness (ppm $CaCO_3$)**	**Manganese (ppm)**	**Iron (ppm)**	**SQ Dose**
Pre-Ortho	160	0.004	0.01	**1.01**

2. Jar Preparation
    a. Lead Coupons – Add a lead coupon into 4 oz jar. Repeat in triplicate for each sample.
    b. Copper Coupons - Add a copper coupon into 4 oz jar. Repeat in triplicate for each sample.
3. Sample Identification

Group	**Test Water Description**	**Lead (Pb)**			**Copper (Cu)**		
1	Finished Water	1	2	3	1	2	3
2	Pre-Ortho Water	1	2	3	1	2	3

4. Water Treatment
    a. Finished Water – Aliquot 700 ml of water into a beaker. Add 2 ppm chlorine to mimic the final chlorine concentration. Stir to thoroughly incorporate.
    b. SeaQuest Treatment Water - Aliquot 700 ml of water into a beaker for each sample. Add 1.01 ppm SeaQuest to beaker as corrosion control treatment. Stir to thoroughly incorporate. Add 2 ppm chlorine to mimic the final chlorine concentration. Stir to thoroughly incorporate.
    c. Aliquot 110 mL of Incumbent Water into respective coupon containing jars.
    d. Aliquot 110 mL of SeaQuest Treatment Water into respective coupon containing jars.
    e. Incubate at room temperature for one week.
    f. Collect sample and preserve with nitric acid.
    g. Send samples to MAS, LLC for metals analysis.
    h. Repeat for each time point as shown below.

5. Time Points
    a. Week 1
    b. Week 2
    c. Week 3
    d. Week 4
    e. Week 5
    f. Week 6

6. Final Analysis
    a. Determined metal concentrations were averaged over the triplicate results with any major outliers removed.

Results

Over the 6 weeks tested, 1.01 ppm of AquaSmart's SeaQuest showed nearly equivalent lead and copper corrosion inhibition to the incumbent. Besides the first week, there were no significant ($p < 0.05$) differences in lead content throughout the trial between the incumbent treatment and the SeaQuest (see Table and Figure 1 below). However, there were significant differences in copper content each week throughout the trial between the incumbent and the SeaQuest (see Table and Figure 2 below), with SeaQuest showing better corrosion inhibition overall.

Figures & Tables

Lead

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Incumbent	0.5	0.45	0.41	0.38	0.33	0.3
SeaQuest	0.37	0.41	0.39	0.35	0.34	0.32
p-value	0.021	0.184	0.56	0.405	0.057	0.635

Table 1: Averaged lead concentrations (ppm) in water over 6 weeks of treatment between the incumbent and SeaQuest treatments.

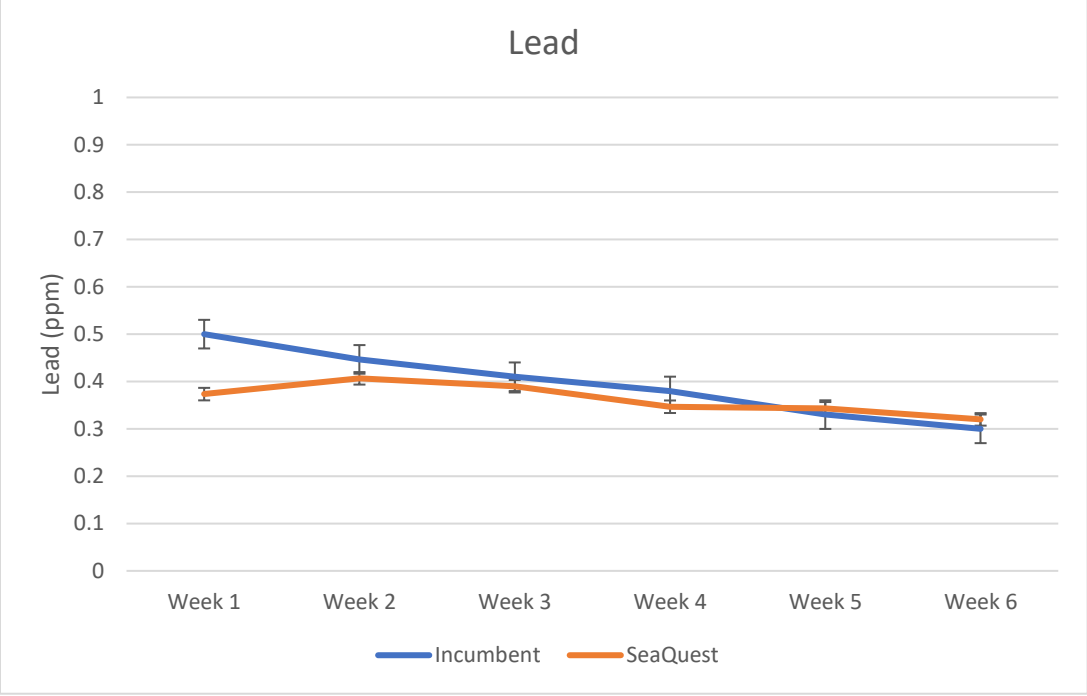


Figure 1. Graphical representation of Table 1 with error bars.

Copper

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Incumbent	2	1.3	1.1	1.02	0.77	0.78
SeaQuest	0.92	0.64	0.56	0.48	0.43	0.41
p-value	0.023	0.009	0.001	0.004	0.003	0.003

Table 2: Averaged copper concentrations (ppm) in water over 6 weeks of treatment between the incumbent and SeaQuest treatments

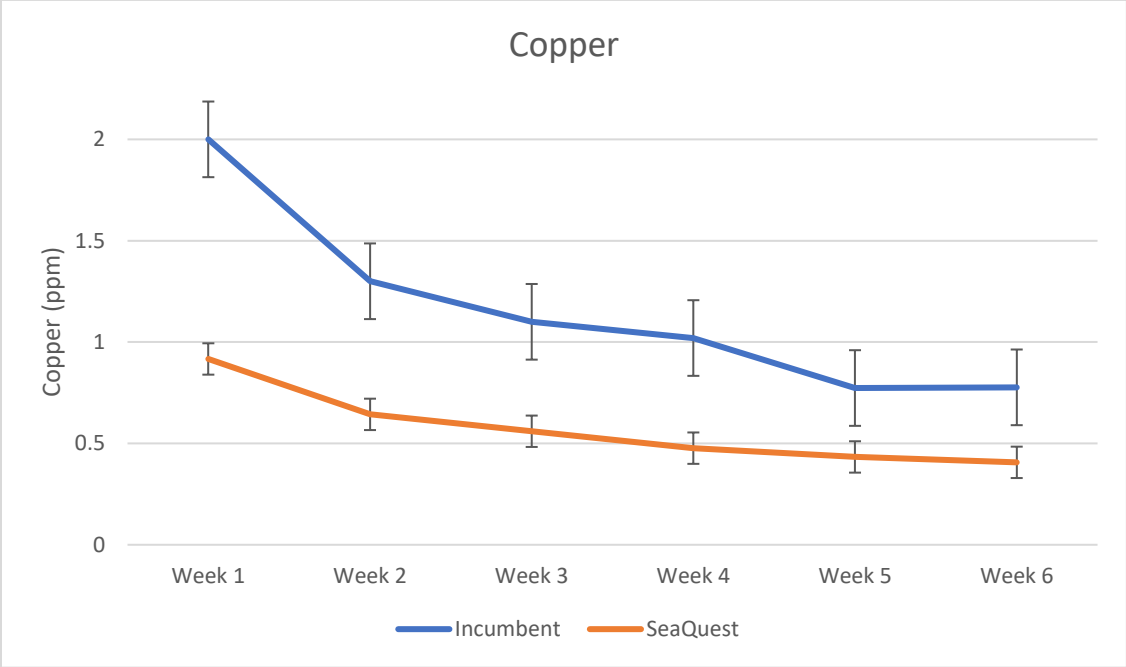
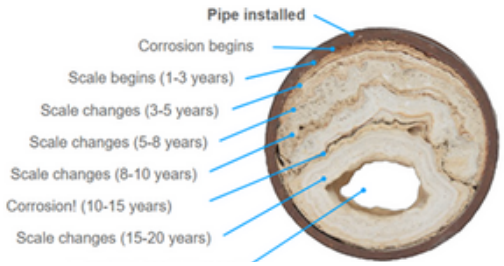


Figure 2. Graphical representation of Table 2 with error bars.

CORROSION CONTROL TECHNIQUES

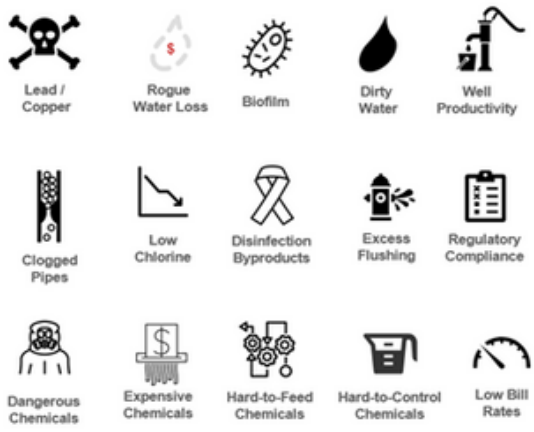
Corrosion is an electrochemical process that occurs when metal interacts with water and oxygen. There are two fundamental challenges that drinking water has with corrosion; you must drink whatever is added; and the water produced at a plant is sent out to a dynamic distribution system where it changes and is no longer controlled. As conditions inadvertently change in the distribution system, some areas of pipe corrode, some scale, and over time the flow can be restricted. This leads to a host of secondary issues, low chlorine, clogged pipes, biofilm, dirty water, excess flushing, disinfection byproducts, and rogue water loss. If water was obtained right as it left the drinking water plant, all of these issues would be eliminated.



Scale Buildup

The general concept of corrosion control has been to generate a mineral scale to create a physical barrier between the water and pipe, so the water and metal do not interact. There are different scales that can be utilized to combat corrosion dependent on the pipe material. Carbonate scale is generated through pH control, phosphate scales through ortho/zinc phosphates and blended phosphates, and silica scale from silica.

Building mineral scale is very complicated as many different factors impact its viability. This technology was developed in the industrial water space where temperature and other conditions can be controlled. Scale theoretically works by creating an inert barrier film to protect the pipe from interacting with the water. This does not work in drinking water since underneath the scale corrosion is still occurring because scale is a porous heterogeneous substance.



Secondary Effect of Corrosion & Scale

Water is more corrosive at a lower pH. The less free hydrogen ions present, the less reactive water is to metal. When there is high hardness pH is raised to create a calcium carbonate precipitation to create a scale on the inside of the pipe. Calcium carbonate rarely adhere to lead and copper pipes. Alkalinity will affect water's ability to corrode or create scale. Creating the right combination of alkalinity and pH is difficult as pH can be volatile throughout distribution, and it can be difficult to properly measure. Depending on the disinfection method, pH can influence its potency which must be balanced with generating scale.

Silica is not typically in use. The effectiveness of silica scale as a corrosion control method has not been fully proven, with additional research needed. Silica may form a film on the surface of the pipe for lead and copper, however it will also increase the pH of water which could have adverse effects.

Orthophosphate is used for corrosion control for lead and copper pipes to create a mineral scale. It reacts with soluble lead (Pb+2) ions to create insoluble lead phosphate ($Pb_3(PO_4)_2$). Orthophosphate is not necessarily stopping corrosion; its primary function is capturing the harmful byproducts (Pb+2) of corrosion. Scale

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formation is dependent on the concentration, typically 1.0-6.0 mg/L; pH between 7.5-8.2; dissolved inorganic carbon; and characteristics of existing scale. Orthophosphate needs to continuously and consistently fed over the lifetime of distribution to maintain scale. Any slight changes in water chemistry may have an adverse effect on the lead phosphate scale, so stable water chemistry is necessary throughout distribution.

Traditional blended phosphates are a blend of orthophosphate and polyphosphate with a specific ratio. The polyphosphate sequesters minerals, and the orthophosphate forms scale on lead and copper pipes. Ideally these should be customized to match the water quality as the balance can be tricky to ensure effectiveness for scale and sequestration.

Equilibrium-blended phosphates take advantage of the biological and chemical conditions at the interface of the pipe wall and water. There is a chemical catalyst that drives a continuous reaction that maintains equilibrium between the orthophosphate and polyphosphate. This disrupts the corrosion process electrochemically, which is non scale forming and uses less overall material. This process works the same way on all metal pipes unlike other methods.

By maintaining the ratio throughout distribution, it has a longer sequestration ability in the presence of strong oxidizers. These phosphates keep the pipe walls clean and the water clear leading to optimization of other water treatment processes. Depending on hardness of the water, a significantly lower concentration might be required compared to other phosphate solutions. Unlike traditional phosphate methods, equilibrium-blended phosphates operate at a wider range of pH.

SeaQuest is an equilibrium-blended phosphate manufactured by AquaSmart. SeaQuest brings a water system into compliance for lead and copper within months (not years), and without the need for pre-passivation. It allows for a water system to reduce or eliminate its post pH control products, creating an environment for lower chlorine demand thereby reducing THM, DBP and turbidity while lowering operational cost.

SeaQuest also addresses issues associated with divalent metals that cause color, tuberculation, scale, and hardness problems. This approach holds metals soluble continuously so that chlorine cannot oxidize the metals. This results in increased chlorine residuals and the eradication of potentially harmful bacteria growth by making the chlorine more effective. Over time SeaQuest removes existing corrosion and scale while improving water quality and clarity. SeaQuest is a simple, low-cost solution for optimizing total chemical use in drinking water treatment.



Selection Grid

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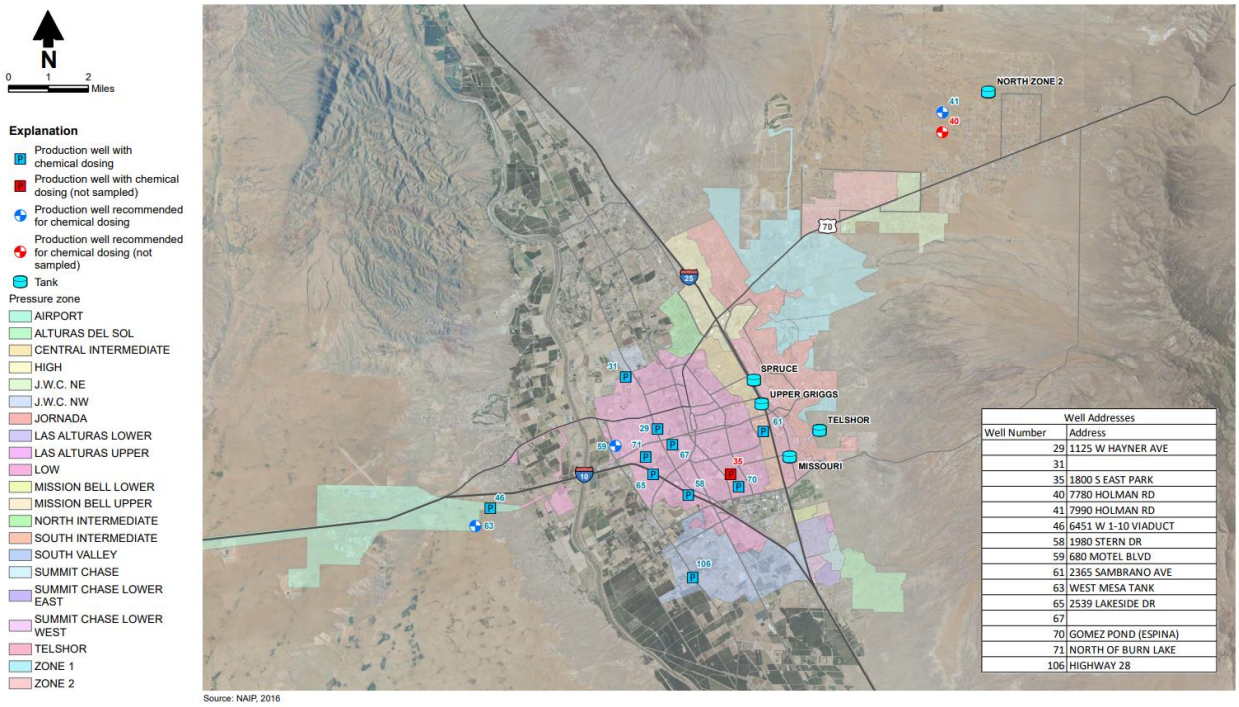
Observing the Effect of SeaQuest Addition in High Manganese Waters Post Disinfection

The City of Las Cruces, New Mexico operates a large number of wells which can contain elevated levels of iron and manganese. A test was performed to show the relative performance of various blended phosphate additives at controlling discoloration in the presence of sodium hypochlorite. The test results were used to determine total cost, and the lowest total cost / highest performing additive was selected via a public tender.

“Based on chemicals scored by qualitative assessment of filters based on minimal dosing and the dosage calculated cost, DBS&A recommends SeaQuest. SeaQuest and Waterworks outperformed WSU for metal sequestration based on the smallest effective dosing rate and sequestration effectiveness determined by filtering. When cost is compared between SeaQuest and Waterworks, SeaQuest results in a lower cost per year. The cost comparison results show that SeaQuest is the best alternative for the City.”

The full engineering report is available upon request. This white paper shows the performance of SeaQuest in the four wells with the highest levels of manganese.



Well Addresses	
Well Number	Address
29	1125 W HAYNER AVE
31	
35	1800 S EAST PARK
40	7780 HOLMAN RD
41	7990 HOLMAN RD
46	6451 W 1-10 VIADUCT
58	1980 STERN DR
59	680 MOTEL BLVD
61	2365 SAMBRANO AVE
63	WEST MESA TANK
65	2539 LAKESIDE DR
67	
70	GOMEZ POND (ESPINA)
71	NORTH OF BURN LAKE
106	HIGHWAY 28

This map shows the well locations in Las Cruces. Well numbers 29, 59, 67 and 71 all have high levels of manganese.

Results

Raw water was collected and oxidized, then filtered through 0.45-micron filter paper via a vacuum pump. Each sample condition represents 0-, 2-, 4- and 24-hour contact time with the sodium hypochlorite prior to filtration (longer time representing a more aggressive test condition). Raw water was dosed with SeaQuest, and the test was repeated. In each of the below examples, the performance of SeaQuest in keeping manganese soluble can be observed.

Table 6. Recommendation Based on Scoring

	SeaQuest			WSU 389			Waterworx 1.775		
Well	Score for Breakthrough Time	Score for Change in Observed Color	Total Score	Score for Breakthrough Time	Score for Change in Observed Color	Total Score	Score for Breakthrough Time	Score for Change in Observed Color	Total Score
29	3	2	**5**	3	3	6	3	3	6
31	1	1	**2**	3	2	5	1	1	**2**
41	—	—	—	—	—	—	—	—	—
46	1	1	**2**	3	3	6	3	2	5
58	1	1	**2**	3	2	5	3	1	4
59	3	2	**5**	3	2	**5**	3	2	**5**
61	—	—	—	—	—	—	—	—	—
63	—	—	—	3	1	—	—	—	—
65	1	1	**2**	3	2	5	1	1	**2**
67	3	1	**4**	3	3	6	3	1	**4**
70	1	0	**1**	1	1	2	1	0	**1**
71	2	1	**3**	3	2	5	3	1	4
106	1	0	**1**	3	2	5	1	1	2
Average	1.7	1	**2.7**	2.8	2.1	5	2.2	1.3	3.5

Bold indicates lowest score (recommended).

As noted above, the SeaQuest outperformed both WSU and Waterworx based on a combined breakthrough time and observed color change score.

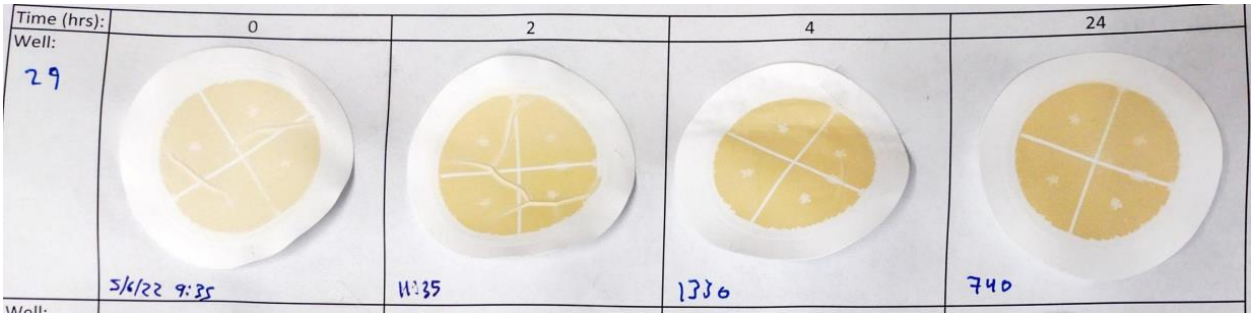
The required dose per well was determined using the results of the oxidation test. The chart below shows the annual cost per well using each material. Aqua Smart Inc. is the manufacturer of SeaQuest, and Pureops is a local SeaQuest distributor.

Table 5. Calculated Chemical Usage and Annual Cost

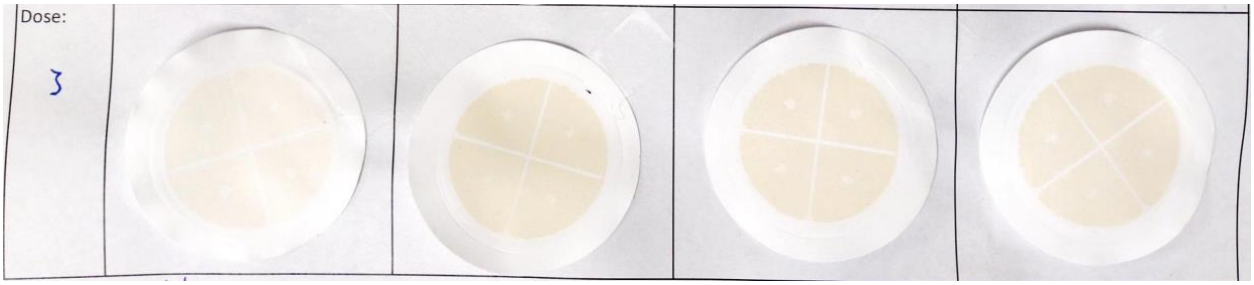
	Use (pounds) per Year				Cost per Year			
	Aqua Smart	Lhoist	Pureops	Water Solns	Aqua Smart	Lhoist	Pureops	Water Solns
Cost per pound					*$3.60*	*$12.00*	*$3.50*	*$1.97*
Well 29	1,829	2,540	1,829	10,159	$6,583	$30,478	$6,400	$20,014
Well 31	2,040	4,251	2,040	3,401	$7,345	$51,009	$7,141	$6,699
Well 35 [a]	3,540	3,848	3,540	6,156	$12,744	$46,173	$12,390	$12,128
Well 40 [b]	—	—	—	—	—	—	—	—
Well 41	—	—	—	—	—	—	—	—
Well 46	511	639	511	703	$1,840	$7,665	$1,789	$1,384
Well 58	4,625	9,634	4,624	9,634	$16,648	$115,614	$16,186	$18,980
Well 59	6,795	5,148	6,795	16,474	$24,463	$61,776	$23,784	$32,453
Well 61	—	—	—	—	—	—	—	—
Well 63	—	—	—	—	—	—	—	—
Well 65	5,776	8,022	5,776	9,627	$20,794	$96,269	$20,216	$18,965
Well 67	11,689	11,239	11,689	24,726	$42,079	$134,868	$40,910	$48,710
Well 70	9,566	16,608	9,566	17,936	$34,437	$199,290	$33,481	$35,334
Well 71	19,649	12,927	19,649	41,367	$70,737	$155,125	$68,772	$81,492
Well 106	—	—	—	—	—	—	—	—
Total	66,020	74,855	66,020	140,182	$237,670	$898,265	$231,068	$276,159

[a] Out of service and not sampled; pounds per year based on dosing rate for wells with similar iron, manganese, and hardness.
[b] Out of service.

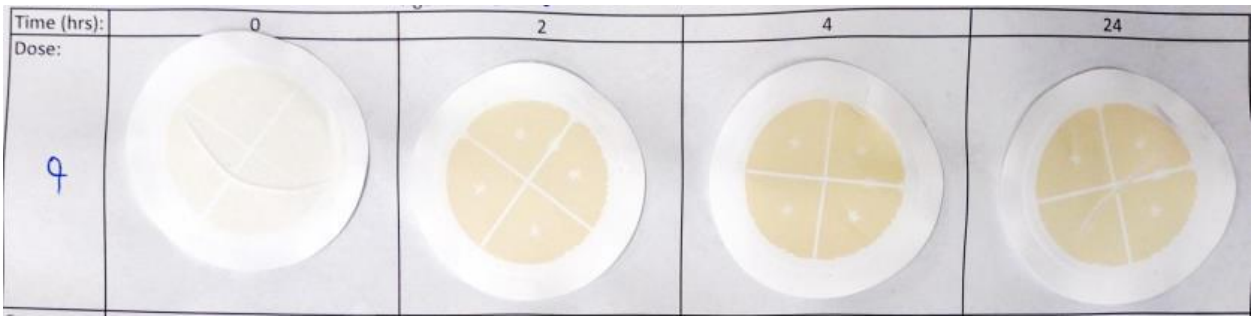
Well 29:
Manganese: 0.52 mg/l
Iron: 0.22 mg/l
Hardness: 490 mg/l
SeaQuest Dose: 3.3 mg/l



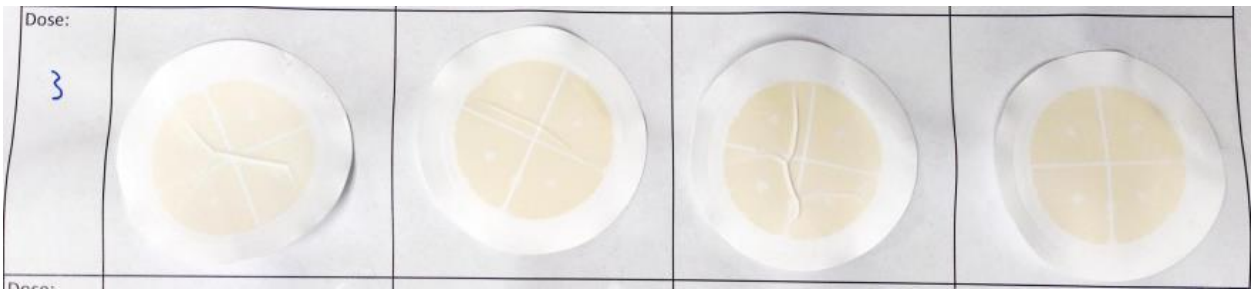
Baseline



SeaQuest

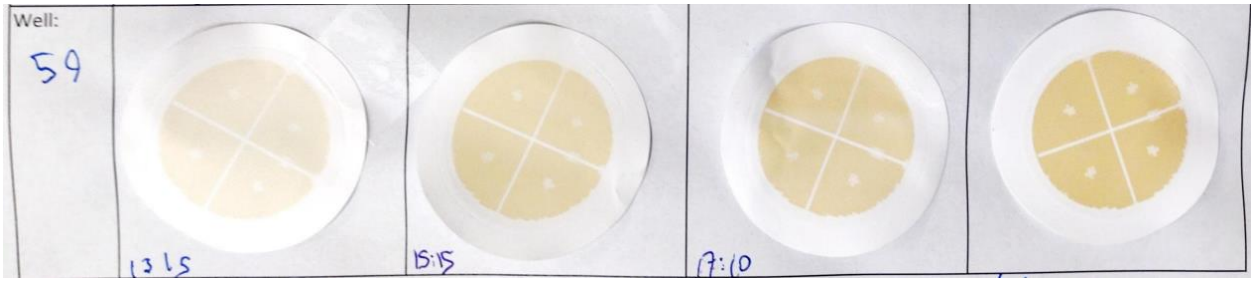


WSU

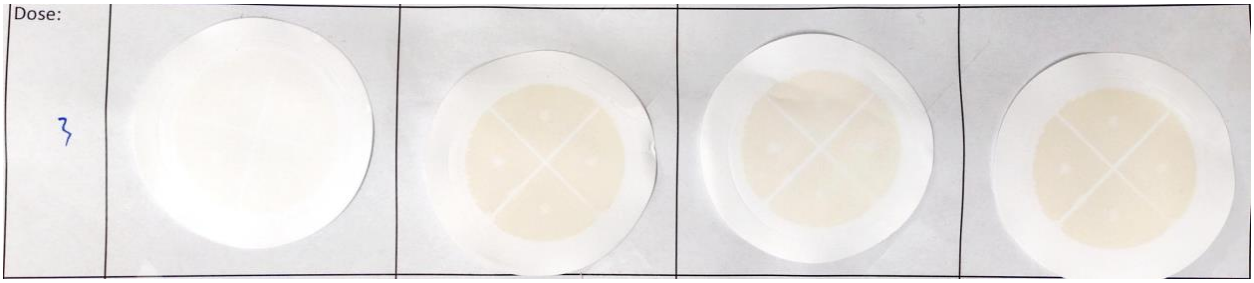


Waterworx

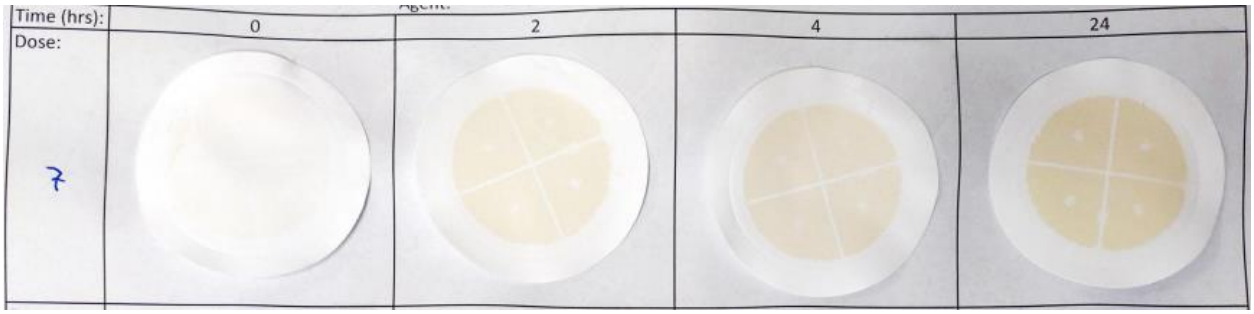
Well 59:
Manganese: 0.28-0.66 mg/l
Iron: 0.15 mg/l
Hardness: 460 mg/l
SeaQuest Dose: 3.3 mg/l



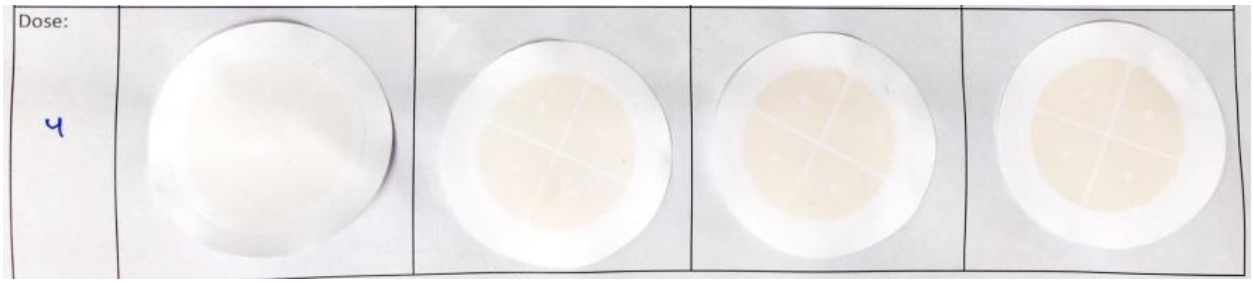
Baseline



SeaQuest

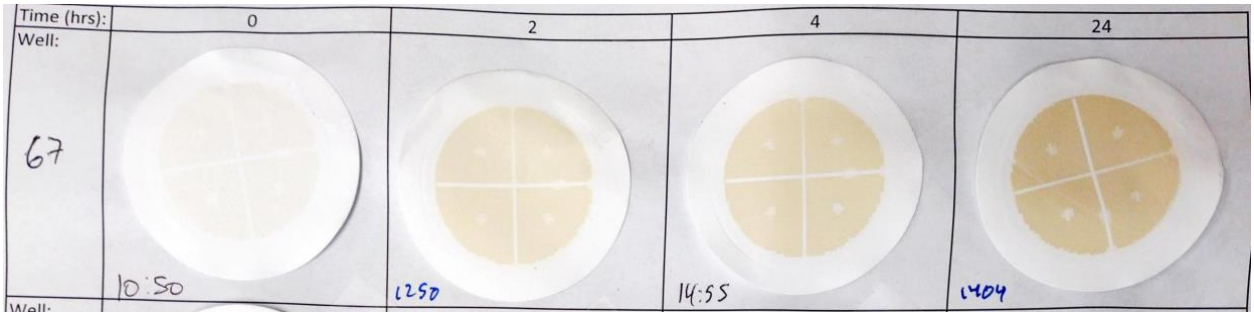


WSU

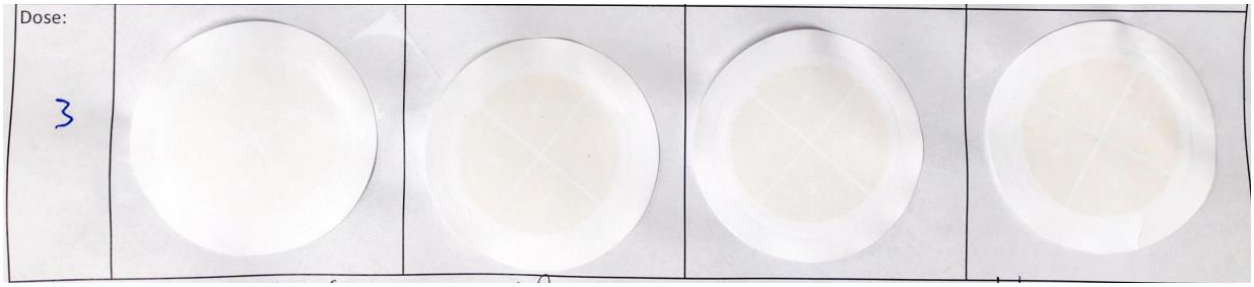


Waterworx

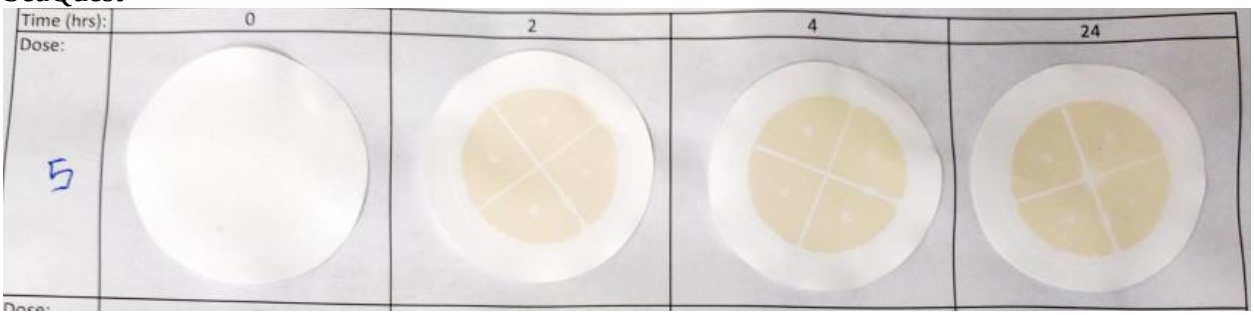
Well 67:
Manganese: 0.36-0.46 mg/l
Iron: 0.024 mg/l
Hardness: 420 mg/l
SeaQuest Dose: 2.6 mg/l



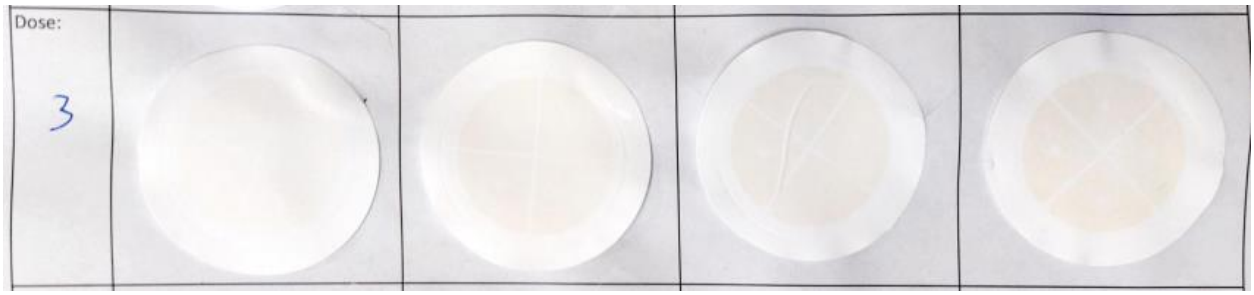
Baseline



SeaQuest



WSU

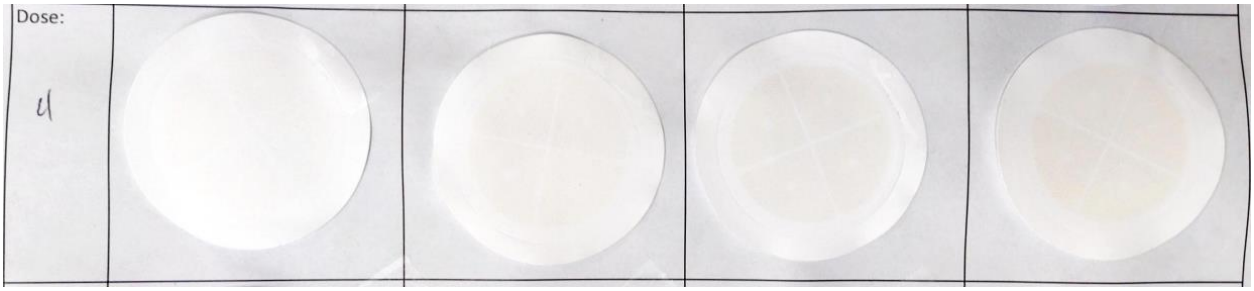


Waterworx

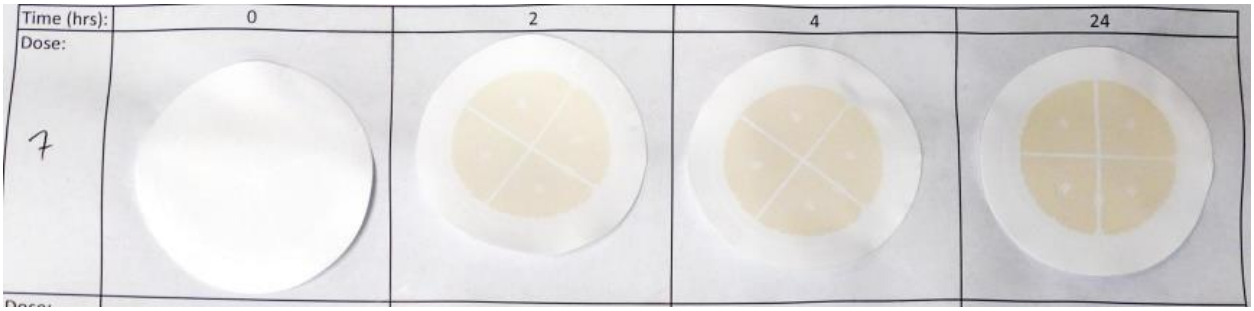
Well 71:
Manganese: 0.41-0.46 mg/l
Iron: 0.068 mg/l
Hardness: 630 mg/l
SeaQuest Dose: 3.8 mg/l



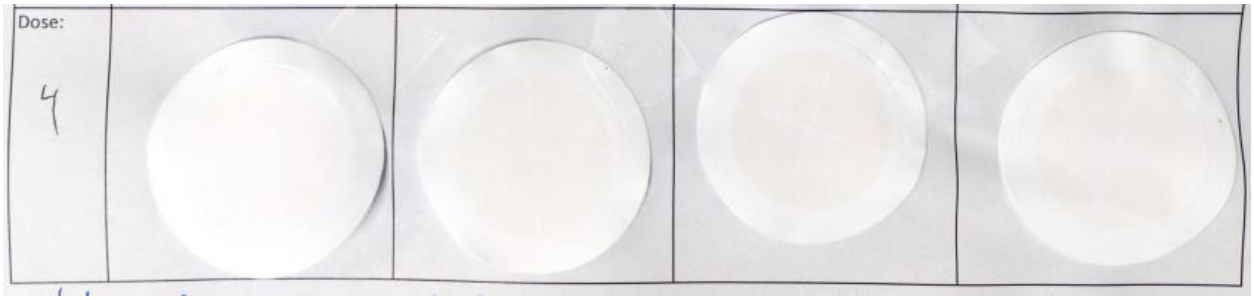
Baseline



SeaQuest



WSU



Waterworx

PIPE CLEANING METHODS

Ancient Rome invented modern plumbing to distribute water throughout Rome. Many of the same issues present then are still present today like corrosion and bacteria. Today there are many different pipe materials utilized for water distribution, ranging from lead, steel, ductile iron, cement lined, and plastic. Each one of these have been used for specific traits: ease of use, corrosivity, cost to manufacture, logistics, and installation.

There are many factors that lead to what is present on the inside of pipes. This is dependent on the pipe material (tubercles, lead phosphate scale, etc.), the type of corrosion control (lead phosphate, calcium carbonate), naturally occurring inorganics in water source and from corrosion (iron and manganese), and organics.



Cleaning pipes is an integral part of a healthy distribution system. Cleaning pipes will assist with clogged pipes, rogue water loss, biofilm, dirty water, low chlorine, disinfection byproducts, low pressure and low bill rates.

The most common techniques for cleaning pipes are flushing, pigging, swabbing, air scouring, epoxy, and phosphates. Deciding which is best for a distribution depends on the pipe material, scale type, biofilm, iron and manganese, budget, staffing, calcium deposits, down time, and pipe age.



Flushing consists of opening hydrants in targeted areas of distribution to help remove built up sediment until the water runs clear. This removes stagnant water and restores disinfectant residuals typically on an annual or biannual basis requiring many man hours. There are two types of flushing, conventional and unidirectional (UDF). Conventional flushing consists of opening each hydrant along a section of water main without closing water main valves. This is faster than UDF but will not remove all sediment. UDF works in one direction, one segment at a time but closing valves then opening a hydrant to flush. This cuts off flows to targeted sections to remove sediment, unlike conventional that moves sediment to another pipe run. This rarely removes all sediment.

Conventional pigging has a pig enter the water main under the force of a hydrant or another supply source, then pushed throughout distribution. Pigs will mechanically scrape soft and hard scale, biofilms, and loose deposits from scale. Pigs are a hard conical shape body made of foam, steel, or plastic. Bare pigs are high density foam that are used to determine inside pipes to identify any obstacles. Cleaning pigs have special coatings to remove the scale or biofilm. Scraping pigs have wire brushes or scrapers to remove corrosion tubercles. There is always a chance that pigs can get stuck in complex distribution systems.

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APPLICATION NOTE

AQUASMART INC SEAQUEST

Ice pigging is comprised of a slurry of crushed ice and salt that is introduced in front of flushing water to scrape the pipe surfaces clean. This allows it to behave like a semi solid material. It works well on iron, manganese, sediments, and biofilms. It is not aggressive enough to remove tuberculation and calcified deposits.

Swabbing are polyurethane foam plugs that are larger than the inside diameter of the pipe which are forces through the pipe with water pressure. This is a less aggressive technique that removes biofilm, soft scale, and loose sediment without a high velocity water flow. This does not remove corrosion tubercles and is typically used to clean new or repaired water mains.

Air scouring can be too aggressive on delicate older pipes. The pipe must be out of service to perform. This can take a lot of man hours to clean out the whole distribution depending on size.

Epoxy is cured in place pipe lining (CIPP). It is applied to the inside pipe walls to address corrosion This is quicker and cheaper than pipe replacement. This is a noninvasive technique. However, it is pertinent to ensure the pipe walls are clean prior to applying for best results.

All these techniques are not going to stop any additional buildup from occurring again. These are all reactive techniques, and over time the same issues will present themselves. A more preventative maintenance is using equilibrium-based phosphates added to the water before going into distribution. This will sequester the minerals on the pipe wall, along with assisting corrosion control. This will not be an instantaneous approach, as it will take years to remove decades of buildup. This approach is noninvasive. It addresses any issues on pipe material, scale type, biofilm, iron and manganese, budget, staffing, calcium deposits, pipe age and downtime.



PIPELINE CUTOUTS, BEN AVON/BEN EDEN LUXURY APARTMENT COMPLEX
BENMORE GARDENS, SANDTON, SOUTH AFRICA

SeaQuest is an equilibrium-blended phosphate manufactured by AquaSmart. It will continually keep pipes clear and clean. Over time SeaQuest removes existing corrosion and scale while improving water quality and clarity. SeaQuest is a simple, low-cost solution for optimizing total chemical use in drinking water treatment. These phosphates keep the pipe walls clean and the water clear leading to optimization of other water treatment processes.



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SeaQuest™ is a unique blend of phosphates providing both sequestration and corrosion control, helping water utilities effectively manage the "triumvirate" of scale, corrosion, and biofouling in their water distribution systems. Utilities using SeaQuest™ provide their customers with clean, colorless drinking water, which eliminates complaints, reduces operating costs, and extends infrastructure life.

Effective

Controls lead and copper corrosion better than ortho-phosphate, at a lower dose

Stops color problems in water containing iron & manganese

Prevents calcium scale deposits in customer appliances

Increases water flow in distribution system piping by reducing scale and corrosion tuberculation

Proven technology used to treat >8 trillion gallons of water across 35 countries

Compliant

Meets drinking water regulations on permissible lead and copper levels

Lowers residual phosphate levels, which reduces cost and improves compliance in wastewater treatment where phosphate discharge regulations are tightening

Makes chlorine more effective, which reduces disinfection byproducts

Sustainable

Replaces current sequestration and / or corrosion control chemicals at a lower dose, which typically saves 15-40% / year

Reduces or eliminates need for chemicals used to adjust pH

Reduces phosphorus use by >50%, which leads to cleaner aquifers

Makes chlorine more effective, which reduces chlorine dose

Lowers scale and pipeline corrosion, leading to less maintenance and reduced long term capital cost

AQUASMART

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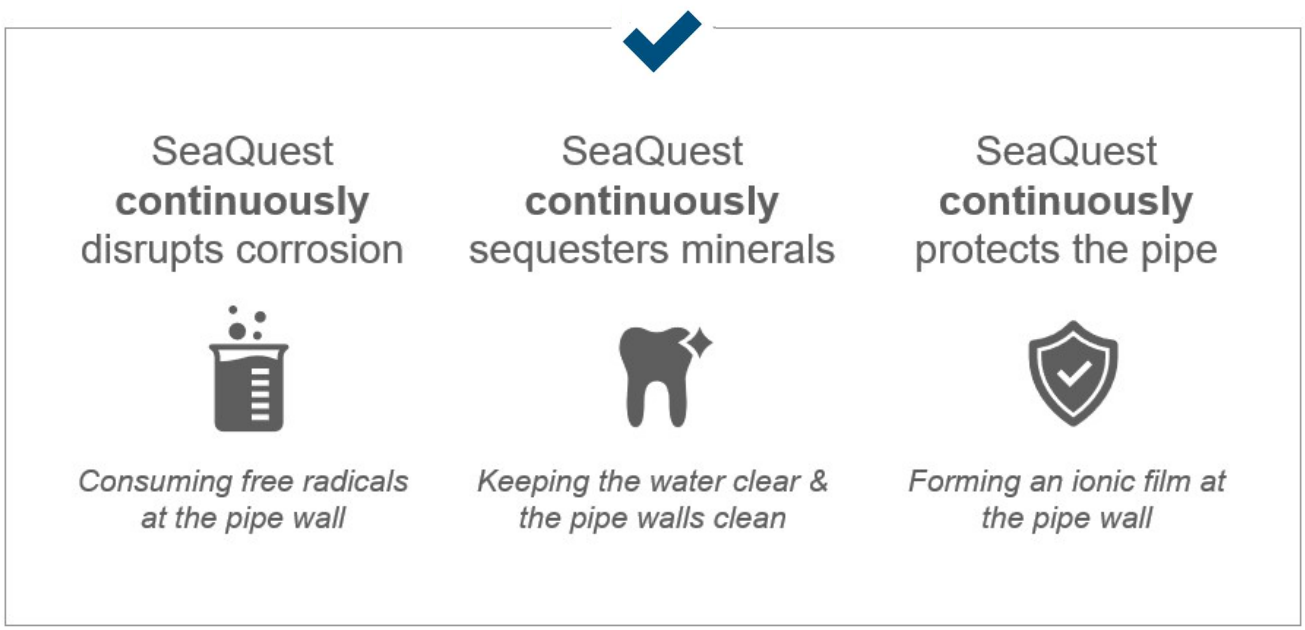
Email: info@aquasmartinc.com
www.aquasmartinc.com

SeaQuest™ is a unique water treatment additive, made from food grade ingredients, that reduces corrosion without building a layer of scale. Aqua Smart Inc is the creator and sole global manufacturer of SeaQuest™.



Regulatory Listings:

- NSF
- DWI
- USDA
- Scotland Dept of Agriculture, Environment & Fisheries
- France Ministere Du Travail, De L'Emploi Et De L'Insertion
- Ontario Ministry of Environment & Energy
- Mexico Dept of Health
- Israel Ministry of Health
- Poland Ministry of Health

Specifications:

- Typical dose 0.5 – 2.0 ppm
- Effective pH range 5.7 – 10.0
- Dry appearance: free flowing, white crystalline granules
- Liquid appearance: clear liquid, stable up to 190° C
- Shelf life: 2 years
- Liquid packages: 1 Gal, 5 Gal, 30 Gal, 55 Gal, 275 Gal, 330 Gal, 1,000 – 4,000 Gal Bulk
- Dry packages: 50 Lbs, 25 KG

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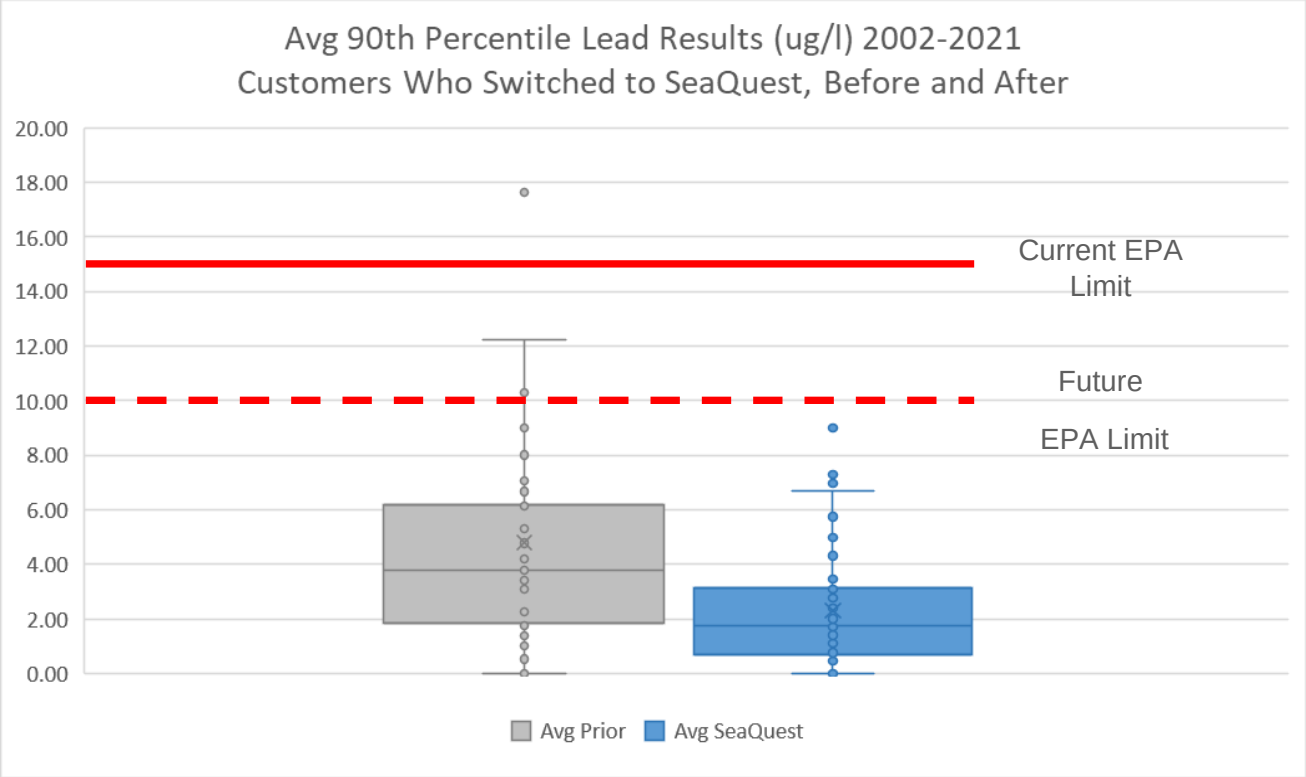
LEAD RESULTS OF SEAQUEST IN THE US 2002 – 2021

Two control groups were selected at random from over 300+ customers. Then those groups 90th percentile data was compared. The first group are drinking water plants that switched from using no treatment, pH/alkalinity adjustment, or a phosphate-based corrosion inhibitor to SeaQuest during the study period. The second group were plants that have been using SeaQuest for the entire length of the study period.

Drinking Water Plants that switched to SeaQuest from 2002 - 2021

63 customers were sampled who switched to SeaQuest from a different corrosion inhibitor since 2002:

- Average 90th percentile lead concentrations were reduced from 4.8 to 2.3 ug/l
- Average reduction in lead concentrations of 52.1%
- All SeaQuest results fell below the proposed 2024 LCRR trigger level

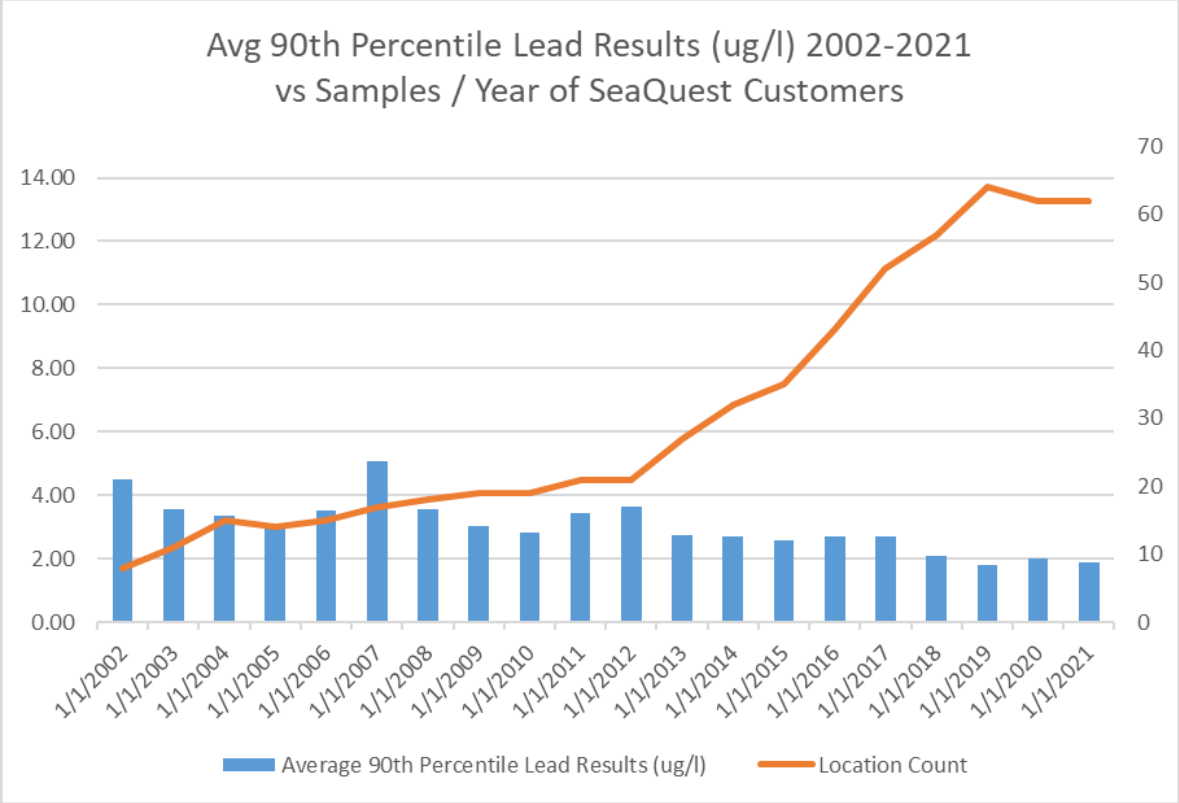


AQUASMART INC

Drinking Water Plants who used SeaQuest from 2002 – 2021

87 customers were sampled who used SeaQuest since 2002:

- Average 90th percentile lead concentrations remain compliant and are continuously reduced.
- All results are below the proposed 2024 LCRR Trigger level



AQUASMART INC

RAW DATA

		REPORTING YEAR																			
Site	State	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
1	NM	2.00	1.00	1.00	1.00																
2	AL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00			0.00	
3	GA	1.60	1.60	1.60	2.00	2.00	2.00	3.50	3.50	3.50	2.50	2.50	2.50	2.50	2.50	2.50	2.60	2.60	2.60		
4	AL	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	15.00	7.50	17.00		7.50	
5	CO	2.60	2.44	4.00	2.80	3.50	14.55	17.00	6.00	6.00	6.00	2.50	2.50	2.50	0.00	0.00	0.00				
6	AL		2.00	1.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	6.00	6.00	5.00		5.00		5.00	10.00	
7	LA	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00										
8	WY	0.00	0.00	0.00	0.00	0.00	0.00														
9	CO	3.40	4.80	2.80	2.10	2.50	3.50	2.00	1.20	3.00	3.00	3.00	2.70	2.70	2.70	3.60	3.60	3.60	4.00	4.00	4.00
10	CO	1.00	2.00	1.90	1.00	2.00	1.00	1.00	1.00	3.00	3.00	3.00	2.60	2.60	2.60	2.20	2.20	2.20	4.00	4.00	4.00
11	SC	2.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00												
12	SC	0.00																			
13	CA	0.00	0.00	0.00	0.00	0.00	0.00	1.10	1.10	1.10	0.00	0.00	0.00	0.73	1.66	0.57					
14	AL	9.00	9.00	3.00	3.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
15	AL		1.00	1.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
16	GA			0.00			2.00														
17	IN	0.00	0.00	0.00	0.00	0.00	5.00	5.00	5.00												
18	IL	2.37	2.37	2.37	6.10	6.10	6.10	7.13	7.13	7.13	14.20	14.20	14.20	11.20	11.20	11.20					
19	NJ	2.27	2.27	2.27	2.27	2.27	0.00	0.00	0.00	0.00	0.00	0.00	3.00	3.00	3.00	1.90	1.90	1.90	0.00	0.00	0.00
20	OK	6.00				5.54															
21	CA	0.00	0.00	0.00	0.00	0.00	0.00	6.20	6.20												
22	AL		1.00			5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00		
23	SC	0.63	0.63	1.60	1.60	5.00	5.00														
24	CO	0.00	2.00	0.00	0.00	0.00	1.00	2.00	4.00	1.00	2.00	4.00	3.00	2.00	1.60	2.00	2.00	2.00	1.00	1.00	1.00
25	NJ		1.40	0.94	1.10	2.30	2.30	2.30	1.10	1.10	1.10	1.30	1.30	1.30	2.60	2.60	2.60	0.00	0.00	0.00	
26	NY	1.40																			
27	NJ		0.00	1.70	2.00	1.20	1.60	1.10	1.10	1.10	2.00	2.00	2.00	1.60	1.60	0.00	0.00	0.00	2.00	2.00	2.00
28	IL	1.00	1.00	2.40	2.40	2.40	2.30	2.30	2.30	1.50											
29	CO	2.00	3.00	3.00	3.00	4.00	4.00	4.00	4.60	4.60	4.60	3.00	3.00	3.00	3.45	5.72	5.72	5.72	1.00	1.00	1.00

30	CO		5.00	7.00	4.00	14.00			15.00			11.00			7.00			7.20			3.00
31	AL	1.00	1.00	1.00	1.00	1.00	1.00	1.90	1.90	1.90	3.38	3.38	3.38	4.00	4.00	4.00					1.00
32	GA			1.70			2.00		1.50		0.00			1.20			2.40	0.87	2.40		1.40
33	NJ	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.82	0.82	0.60	0.60	0.60	2.40	2.40	2.40	0.00	0.00	5.10	5.10	
34	NJ	2.93	2.93	2.93	2.63	2.63	2.63	3.63	3.63	3.63	12.00	12.00	12.00	4.00	4.00	4.00	0.00				
35	IL	1.10	1.10	1.10																	
36	MO	2.67					6.67														
37	NJ	1.94	1.94	2.10	2.10	1.00	1.00	1.00	3.80	3.80	3.80	2.90	2.90	2.90	4.00	4.00	4.00	5.50	5.50	2.10	
38	IL	1.74		3.90																	
39	NJ		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	3.00	46.00	46.00	46.00	6.80	6.80			
40	CT	3.20																			
41	GA	0.00	1.80	1.80	1.80	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50			
42	NJ		0.00	0.00	0.00	2.40	2.40	2.40	3.70	3.70	3.70	3.10	3.10	3.10	0.00	0.00	0.00	2.30	2.30		
43	AL		5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	3.00	3.00	3.00	3.00	3.00	3.00
44	IL	1.28	9.29	9.29	9.29																
45	NJ	0.00	0.00	0.00	0.00	0.00	3.00	3.00	3.00	6.00	6.00	0.00	0.00	5.00	5.00	5.00	4.00	4.00			
46	SC		3.10	3.10																	
47	MS		2.00	2.00	2.00																
48	CO	7.50	1.90	1.80	1.80	3.10	4.00	4.00	4.00	4.00	4.00	4.00	2.50	2.50	2.50	4.00	4.00	4.00	3.00	3.00	3.00
49	AL		5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00		
50	NJ		0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.04	5.70	5.70	0.00	0.00	0.00	4.10	4.10	4.10
51	NC	6.20		5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00									
52	CO	2.40	2.45	2.10	4.65	4.90	2.80	2.80	2.80	10.00	10.00	10.00	2.00	2.00	2.00	2.30	2.30	2.30	5.00	5.00	5.00
53	NM			0.80	0.80	0.80															
54	NJ	0.00	0.00	0.00	0.00	1.10	1.10	1.10	4.20	4.20	4.20	3.30	3.30	3.30	8.90	8.90	3.50	3.50	3.50		
55	CO	3.55	1.70	1.50	1.55	2.00			0.10			3.00	0.00	2.20	3.00	2.50					5.80
56	NJ	1.68	1.68	1.68	12.00	12.00	12.00	1.85	1.85	1.85	1.29	1.29	1.29	0.00	0.00	0.00	2.60	2.60	2.60		
57	IL	1.28	4.59	4.59	4.59	9.96	9.96	9.96				11.40	11.40	11.40							
58	NJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	2.10	2.10	2.90	2.90	2.90	2.50	2.50	2.50	0.00	0.00	0.00	
59	IL			1.23	1.23	1.23							0.00	0.00	0.00						
60	CO	1.00	2.00	2.00	1.00	2.00	4.00	4.00	4.00	2.00	2.00	2.00	3.90	3.90	3.90	5.00	5.00	5.00	5.00	5.00	5.00
61	NY	3.10																			
62	NY		0.00																		

63	CO	5.10	3.70						5.60			3.00	5.00	3.00	3.30	6.10					8.00
64	IL	3.81	3.81	3.46	3.46	3.46															
65	CA																				
66	NJ	1.20	1.32	1.32	1.32																
67	AL		5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
68	IL	2.67	2.67	2.67	6.40	6.40	6.40														
69	CO	3.00	2.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
70	CO		1.00	0.35	0.75	0.60	2.00	0.60	1.25	1.15	1.30	8.00	2.65	3.50			2.60				
71	MS			3.00	3.00	3.00															
72	TN	0.00	0.00																		
73	SC	0.00	0.00	0.00																	
74	CO	0.00	0.50	3.00	4.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	6.00	6.00	6.00	6.00		12.00	6.00	6.00	6.00
75	CO	1.00	3.00	2.80	3.00	1.80			8.30			4.00			1.60		2.00	2.20	2.00	2.55	
76	CO	6.80	3.20	3.30	7.10	9.80			2.70	2.50	2.00	2.00	3.00	5.00							9.00
77	CO	0.70	1.10	1.25	3.00	2.40	7.00	9.50	3.50	6.50	33.00	8.00	7.50	18.00	17.50						
78	MS		7.00																		
79	GA	1.10	1.10	1.10	0.00	2.50	2.50	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.50	2.50	2.50	0.00	0.00	0.00
80	CO	0.00	1.00	1.35	0.80	1.55	1.35	1.35	1.35	6.40	6.40	6.40	3.20	3.20	3.20	2.40	2.40	2.40	5.25	5.25	5.25
81	CO	3.70	5.35	3.60	5.20	4.80	6.75	5.50	6.95	11.25	7.15	13.00	7.00	20.25	8.60						2.00
82	CO	2.20	0.00	0.00	0.00	0.85	1.10	0.00	0.00	0.00	0.00	0.00	0.05	0.00				2.53	4.20		
83	TX	1.80																			
84	GA		3.90	1.30	1.30	1.30	2.70	2.70	2.70	2.50	2.50	2.50	2.50	3.50		8.80			4.90	5.70	15.00
85	GA		4.60	0.00	0.00	2.50		1.84	1.84	4.80											
86	GA			0.00			0.00														

INDICATES YEARS SYSTEM USED SEAQUEST

BLANKS INDICATE YEARS IN WHICH DATA WAS UNAVAILEABLE

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting

661 South George Street
Charles Town, WV 25414

Chairman Report

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting

661 South George Street
Charles Town, WV 25414

January 28, 2026

Attachments:

Board Report 01.28.26.pdf

Totals by Year-Fund

Fund Description	Fund	Expend Total	Revenue Total	G/L Total	Total
Water	**6-50**	**$92,149.87**	**$0.00**	**$86,739.61**	**$178,889.48**
Sewer	**6-60**	**$68,955.36**	**$0.00**	**$7,395.94**	**$76,351.30**
Total Of All Funds:		**$161,105.23**	**$0.00**	**$94,135.55**	**$255,240.78**

Totals by Fund

Fund Description	Fund	Expend Total	Revenue Total	G/L Total	Total
Water	**50**	**$92,149.87**	**$0.00**	**$86,739.61**	**$178,889.48**
Sewer	**60**	**$68,955.36**	**$0.00**	**$7,395.94**	**$76,351.30**
Total Of All Funds:		**$161,105.23**	**$0.00**	**$94,135.55**	**$255,240.78**

TOTAL PAGES: 4

APPROVED BY: _____

APPROVED BY: _____

This Packet: $ 255,240.78
Security Deposit Refunds, checks dated 1/28/2026: 1,559.89

Total: $ 256,800.67

Vendor # / P.O. #	PO Date	*Name* / Description	Status	Amount	Void Amount	Contract	PO Type
ROBER020		ROBERT K TRITT FOR BOBBY'S USE					
26-01174	01/28/26	PARCEL AGREEMENT	Open	$6,125.00	$0.00		
ROBER025		ROBERT LYNN KERSHNER					
26-01175	01/13/26	SVC CALLS TWWTP & FLNGSPGS PS	Open	$910.00	$0.00		
SGPLU005		SG PLUMBING, INC.					
26-01176	01/09/26	TWWTP: 1/08/26	Open	$583.03	$0.00		
26-01177	01/09/26	TWWTP: 1/08/26	Open	$1,145.17	$0.00		
			Vendor Total:	**$1,728.20**			
SHENA010		SHENANDOAH AIR CONDITIONING					
26-01197	01/14/26	TROUBLESHOOT COMPRESSOR	Open	$99.00	$0.00		
SHENA005		SHENANDOAH SALES & SERVICE INC					
26-01178	12/17/25	SEWER DUMP TRCK LATCHGATE WEL	Open	$335.00	$0.00		
26-01179	12/30/25	MAINT VEHICLE REPAIR/SVC	Open	$666.84	$0.00		
			Vendor Total:	**$1,001.84**			
SNYDE005		SNYDER ENVIRONMENTAL SERVICES					
26-01198	01/28/26	R&R METERS AND VALVE	Open	$17,583.74	$0.00		
STEPT005		STEPTOE & JOHNSON PLLC					
26-01180	01/16/26	GENERAL ENVIRONMENTAL	Open	$12,150.00	$0.00		
CITHO005		THE CI THORNBURG CO, INC.					
26-01147	01/14/26	VALVE	Open	$690.00	$0.00		
26-01187	01/19/26	PIN SCREW CLAMP BLOCK	Open	$188.30	$0.00		
26-01188	01/20/26	WATER STOCK	Open	$122.65	$0.00		
26-01189	01/08/26	METER PIT, BOX RING, COVER	Open	$2,862.05	$0.00		
26-01190	01/20/26	METER PIT	Open	$276.64	$0.00		
26-01191	01/08/26	CHLORINE	Open	$3,867.30	$0.00		
26-01203	01/05/26	SRII CHAMBER	Open	$4,010.00	$0.00		
			Vendor Total:	**$12,016.94**			
USALC010		USALCO, LLC					
26-01181	01/21/26	DELPAC 2500	Open	$7,931.00	$0.00		
WVDEP005		WV DEPT OF HEALTH & HUMAN SVCS					
26-01184	01/15/26	FLOURIDE TEST	Open	$20.00	$0.00		
WVRUR005		WV RURAL WATER ASSOCIATION					
26-01185	01/28/26	MEMBERSHIP DUES	Open	$5,000.00	$0.00		
WVWAT005		WV WATER DEVELOPMENT AUTH					
26-01205	01/28/26	#2017-175 INFRSTRCTR FNDPRJCT	Open	$1,270.94	$0.00		

Total Purchase Orders: 63 Total P.O. Line Items: 0 Total List Amount: $255,240.78 Total Void Amount: $0.00

Vendor # / P.O. #	PO Date	*Name* / Description	Status	Amount	Void Amount	Contract	PO Type
FCIGR005		FCI GROUP LLC	*Account Continued*				
26-01156	01/14/26	MAINT VEHICLE TIRES	Open	$1,382.71	$0.00		
GERAL005		GERALD TAYLOR CO., INC.					
26-01157	01/13/26	PUMP / TRANSPORT	Open	$766.32	$0.00		
26-01158	01/13/26	TRANSPORT	Open	$815.76	$0.00		
26-01159	01/13/26	SUPERVAC	Open	$2,510.23	$0.00		
26-01169	01/20/26	PUMP / TRANSPORT	Open	$724.17	$0.00		
26-01170	01/20/26	TRANSPORT	Open	$815.76	$0.00		
			Vendor Total:	**$5,632.24**			
GREEN010		GREENRIDGE CONTRACTORS INC					
26-01160	01/11/26	RAW WA LINE EMERGNCY BYPASS	Open	$58,079.24	$0.00		
GUTTM005		GUTTMAN ENERGY					
26-01161	01/11/26	W/E 1/11/26	Open	$1,690.77	$0.00		
26-01162	01/18/26	W/E 1/18/26	Open	$1,652.12	$0.00		
			Vendor Total:	**$3,342.89**			
HDSUP005		HD SUPPLY INC					
26-01200	01/22/26	TNT	Open	$1,626.08	$0.00		
HIGHH005		HIGH HORIZONS FARM, INC.					
26-01168	01/09/26	STRAW	Open	$100.00	$0.00		
INWOO005		INWOOD QUARRY, INC.					
26-01163	01/16/26	I10 & C2 & I8 PICKUPS: 1/16/26	Open	$1,268.39	$0.00		
JCKUN005		J.C. KUNKLE & ASSOCIATES, A.C.					
26-01165	01/19/26	PROFF SVC FYE 2025	Open	$20,250.00	$0.00		
26-01166	01/19/26	PROFF SVC FYE 2025 ROXUL	Open	$525.00	$0.00		
			Vendor Total:	**$20,775.00**			
JAMES005		JAMES RIVER EQUIPMENT					
26-01164	12/23/25	331G RPLCD PRSSR SNSR	Open	$859.90	$0.00		
26-01195	01/21/26	331G RPLC & BLLD PRSSR SNSR	Open	$561.98	$0.00		
			Vendor Total:	**$1,421.88**			
JEFFE005		JEFFERSON PUBLISHING COMPANY					
26-01201	01/08/26	1/8 & 1/15 PROPOSAL	Open	$219.06	$0.00		
JPRFB005		JP & RF BURNS PARTNERSHIP					
26-01167	01/28/26	DEC LOADS - 47	Open	$8,554.00	$0.00		
MCKIN005		MCKINNEYS AUTO REPAIR & TOWING					
26-01172	01/09/26	MAINT VEHICLE REPAIR	Open	$1,271.75	$0.00		
26-01204	01/06/26	WATER VEHICLE SERVICE	Open	$154.53	$0.00		
			Vendor Total:	**$1,426.28**			
MGLPR005		MGL PRINTING SOLUTIONS					
26-01173	01/21/26	1099 FORMS & ENVELOPES	Open	$107.00	$0.00		

Charles Town Utility Board
Purchase Order Listing By Vendor Name

Ranges	Item Status	Purchase Types	Misc
Range: *First to Last*	***Open:*** *N*	***Bid:*** *Y*	***P.O. Type:*** *All*
Rcvd Batch Id Range: *First to Last*	***Void:*** *N*	***State:*** *Y*	***Format:*** *Condensed*
Paid Date Range: *01/28/26 to 06/30/26*	***Paid:*** *Y*	***Other:*** *Y*	***Include Non-Budgeted:*** *Y*
	Held: *N*	***Exempt:*** *Y*	***Prior Year Only:*** *N*
	Aprv: *N*		***Vendors:*** *All*
	Rcvd: *N*		

Vendor # / P.O. #	PO Date	*Name* / Description	Status	Amount	Void Amount	Contract	PO Type
WILLI015		ALL AMERICAN PAVING					
26-01182	01/09/26	CONCRETE& ASPHALT:11/4-11/17/2	Open	$16,128.00	$0.00		
26-01183	01/09/26	ASPHALT& CONCRETE: 12/3-12/18/	Open	$15,828.00	$0.00		
			Vendor Total:	**$31,956.00**			
AUTOZ005		AUTOZONE, INC					
26-01142	12/08/25	SEWER VEHICLE SUPPLIES	Open	$89.30	$0.00		
26-01143	12/08/25	SEWER VEHICLE SUPPLIES	Open	$97.30	$0.00		
26-01144	01/07/26	MAINT VEHICLE SUPPLIES	Open	$67.98	$0.00		
26-01145	01/14/26	SEWER VEHICLE SUPPLIES	Open	$61.86	$0.00		
26-01186	01/21/26	MISC FOR SEWER VEHICLES	Open	$90.61	$0.00		
			Vendor Total:	**$407.05**			
CHSTR005		CHS TRAFFIC CONTROL SERVICES I					
26-01146	01/11/26	201 S GEORGE ST: 1/5/26	Open	$1,565.00	$0.00		
CITYO005		CITY OF CHARLES TOWN					
26-01148	01/28/26	FEB RENT@ 661 S GEORGE ST	Open	$2,550.00	$0.00		
26-01192	01/28/26	UB COLLECTIONS DEC	Open	$23,509.23	$0.00		
26-01202	01/16/26	NOV UTILITIES@ 661 S GEORGE ST	Open	$1,734.18	$0.00		
			Vendor Total:	**$27,793.41**			
COAST005		COASTTEC					
26-01149	01/09/26	APC POWER BACKUPS	Open	$400.15	$0.00		
CORPO005		CORPORATION OF RANSON					
26-01196	01/28/26	DEC UT COLLECTIONS	Open	$5,151.14	$0.00		
COYNE005		COYNE CHEMICAL INC					
26-01150	01/08/26	CONTAINER RETURNS	Open	20.00-	$0.00		
26-01151	01/08/26	AMMONIUM SULFATE 40% NSF	Open	$1,586.00	$0.00		
26-01152	01/08/26	ZETAG 8868 FS	Open	$10,684.45	$0.00		
26-01171	01/16/26	MICRO C2000	Open	$3,733.20	$0.00		
			Vendor Total:	**$15,983.65**			
CREAM005		CREAMER'S WRECKER SERVICE					
26-01153	01/16/26	TOW FROM WWTP TO TABBS 1/16	Open	$147.95	$0.00		
DODSO010		DODSON SEPTIC SERVICES, LLC					
26-01154	01/07/26	PUMP LIFT STATIONS	Open	$540.00	$0.00		
26-01155	01/12/26	PUMP WTP / TRANSPORT WWTP	Open	$500.00	$0.00		
26-01193	01/13/26	PUMP / TRANSPORT	Open	$500.00	$0.00		
26-01194	01/20/26	PUMP LIFT STATIONS	Open	$525.00	$0.00		
			Vendor Total:	**$2,065.00**			
FCIGR005		FCI GROUP LLC					

CHARLES TOWN UTILITY BOARD

Wednesday, January 28, 2026

Regular Meeting

661 South George Street
Charles Town, WV 25414

Next Meeting - February 11, 2026 at 4:00 P.M.