CHARLES TOWN UTILITY BOARD
AGENDA

WEDNESDAY, FEBRUARY 24, 2021

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

CALL TO ORDER

1. **APPROVAL OF MINUTES**
   a. Approval of February 10, 2021 Regular Meeting Minutes
      UB Minutes February 10, 2021.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.

   Until such time as Governor Justice revokes Executive Order 09-20 or any subsequent executive order that is primarily intended to address the public health emergency and spread of COVID-19 by restricting public gatherings and invoking physical distancing, public access to the meeting room will be restricted. Members of the public may still submit written comments to kstolipher@ctubwv.com that will be read aloud. Up to 20 minutes of time will be allotted for reading public comments.

   The public is invited to attend this meeting via webcast (www.ctubwv.com - Board Meetings - Meeting Agendas and Minutes 2021). The public may also attend the meeting by accessing the following zoom link: https://zoom.us/j/91499279265?pwd=eFo5TDhDd2JZdGxiWUNTbExIV283QT09 or by calling 1-301-715-8592 and entering the Meeting ID 914 9927 9265 and Passcode 674609.

3. **UNFINISHED BUSINESS**
   a. Rate Equalization Update and Recommendation
      Council Presentation Packet 02182021.pdf
   b. GDF - Renewal and Replacement Project Presentation

4. **NEW BUSINESS**
   a. Route 9 Project Change Order No. 9
      4a-Change Order No. 9.pdf
   b. Route 9 Sewer Project Resolution No. 12 - Contractor Pay Application No.

012, Hatch Invoices and CTUB Reimbursement
4b-Resolution No. 12 - Route 9.pdf

c. Route 9 Project Change Order No. 10
Change Order No. 10.pdf

d. Route 9 Sewer Project Resolution No. 13 - Pay Application No. 013
Resolution No. 13.pdf

e. CITCO Meter Reading Vehicle Unit
Citco Quote.pdf

f. HATCH - Task Order #10A Magnolia Springs Inspection Extension
Task Order #10A.pdf

g. Sewer Strategic Plan 2021-2024 DRAFT
DRAFT SSP 2021.pdf

5. **MANAGER REPORTS**
   a. Utility Manager Report
   b. Chairman Report

6. **APPROVAL OF BILLS**
   a. February 24, 2021
   Board Report 2.24.21.pdf

7. **ADJOURNMENT**

8. **INFORMATION ONLY - NEXT MEETING - MARCH 10, 2021 AT 4:00 P.M.**

February 10, 2021

The Charles Town Utility Board held a virtual meeting on February 10, 2021 at 4:00 p.m. Members of the Board present were Daryl Hennessy, Pete Kubic, Duke Pierson, Jacquelyn Milliron and Tommy Stocks. Also present were Hoy Shingleton, Kristen Stolipher, and April Shultz. The Chairman called for changes or corrections to the January 27, 2021 regular meeting minutes. With no changes, the Board approved the minutes as presented. There were no public comments.

Next discussed was the Hale Road and County Green Gravity Sewer Connections to Magnolia Springs. Kristen provided Hatch Task Order No. 11 which offered several alternatives and probable construction costs for the sewer design to the tie-in connections between the proposed Magnolia Springs with the existing Hale Road (PS 4-4) and County Green (PS 4-7) pump stations. Staff recommended amending the AMEA with Tate Manor and Magnolia Springs and allow the contractors, Kinsley Construction, who are already mobilized to perform the improvements for the gravity line install for offsite connections. Kinsley was also the lowest bidder. Staff will do the decommissioning of the two pump stations in house. This option would be a cost savings to the Utility. Motion made by Pete, second by Tommy with discussion from Jacquelyn, the Board approved amending the AMEA's and allowing staff to work through the contractual commitments to get the projects completed. Jacquelyn opposed. She was concerned with the magnitude of this project as a whole and why it was not part of the R&R project.

The Chairman next opened the floor for discussion on the Elevated Tank Cleaning. Kristen provided a quote to clean all elevated tanks. After reaching out to three firms, Liquid Engineering was the only firm to submit a quote totaling $16,200.00. Motion made by Tommy, second by Duke with discussion from Jacquelyn, the Board approved the quote with Liquid Engineering for elevated tank cleaning.

Next discussed was the Utility Manager Report. Kristen briefed the Board on this month's efforts. At the next meeting, staff will bring back to the Board a draft strategic plan, safety manual, and rebudgets. Kristen also provided an update from Tim Stranko on the response from the Office of Disciplinary Council. Since there are no active conflicts, they could not provide a response to the request. The Chairman noted and the Board agreed, that being no apparent conflicts they are ready to proceed with Mr. Stranko. Jacquelyn had several questions regarding the Manager Report.

Under the Chairman report, the Chairman took a quick poll from the Board on whether to begin in-person board meetings or continue with virtual. The Board members were open to either option, so the Chairman decided to continue with virtual for the time being with the ability for members to attend the meeting at 661 South George Street if they desired. The Chairman also provided an update on the rate equalization status. He mentioned the Ordinance Committee will meet on February 18th at 6pm to discuss the rate equalization options provided by staff. Kristen will send a copy of the packet to the Board prior to that meeting.

Next, the Approval of Bills was discussed. Motion by Tommy, second by Pete with discussion from Jacquelyn, the Board approved the payment of bills.

The meeting was adjourned at 5:08 p.m. The February 24th regular meeting will be held virtually at 4:00 p.m.

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Chairman Secretary

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Rate Equalization Overview

- The rate equalization options meet the 130% benchmark debt service coverage in the first step.
- The proposed first step is to increase the CT rate by 5% to the Ranson rate. This proposal was included in numerous proforma documents during the consolidation of sewer utilities with the City of Ranson based on project needs and rate equalization. It should be noted that the rates would currently be the same, however Ranson raised their rates in 2016 to account for the projects that were needed. Charles Town did not raise rates for the projects needs.
- The proposed rate equalization options will take 4 steps over 8 years. In some cases, there may need to be supplemental increases of the CT/Ranson combined rate to meet the JCPSD rate if equalization isn't achieved between Years 2 and 8.
- Full rate equalization in year 1 would result in a total revenue loss of $637,000, which cannot be sustained by the Utility, therefore equalization must be accomplished in steps.
- The recommended option below allows CTUB to maintain 130% for the 1st step as well as the 2nd step and leaves a small amount of residual surplus for contingencies. This limits potential negative impacts of revenue reduction due to other economic or unforeseen factors. *(Page 3, Option 2)*
- The project financing and costs are estimates and there is always a chance for future negative impacts due to the COVID pandemic or other economic factors. Staff recommends leaving an adequate residual surplus as a contingency for these reasons.
- The break-even point of $125,000 is a rate decrease of 9.15% but CTUB will be right at 130% benchmark coverage by step 2. Again, this is based on estimates that could easily change. *(Page 3, Option 4)*
- Currently, CTUB & Ranson follow a tiering structure. In order to achieve rate equalization in the timeline provided, it is recommended that the PSD rate structure be tiered initially until the Board evaluates the results of the class cost of service study.
- The recommended option brings CTUB closer to equalization and benefits more customers. *(Page 12)*
- If a single tier option is selected for JCPSD customers, only the top tier is reduced by 10.9% and it will therefore take longer to achieve rate equalization. Customers only benefit by $190,000 under this method compared to $214,000 under the recommended option. *(Page 5)*
- All of the "rated" utilities in WV that staff reviewed had a debt service coverage ratio in excess of 140%. This level of coverage ration is what the rating agencies are accustomed to seeing.

Rate Equalization Recommendations

Rate equalization has an impact on each and every CTUB sewer customer. An added complexity is the equalization of three different utility rates and one having a significantly different rate structure (JCPSD single tier). The Charles Town and City of Ranson rate structures follow the tiered rate approach consistent with the WVPSC Commodity-Demand method which most water and sewer utilities follow in West Virginia. The Commodity-Demand method makes significant use of peak demand factors by customer class and isolates costs that are purely volume related and customer driven. Demand factors are significantly different for customer classes (i.e. residential, commercial). Peaking factors generally significantly decline when comparing the residential class to the commercial and other classes. This approach is the WVPSC recommended, most conventional and fairest for systems with multiple and material customer classes. The importance of this discussion on tiering is that the most practical and needed approach to rate equalization will be to transition the JCPSD single tier structure in a stepped manner to the multiple tiered structures of the City of Charles Town and City of Ranson. In addition to the recommendations below, CTUB staff and its financial advisors recommend maintaining a minimum debt/service coverage ratio of 130% for the combined utility moving forward.

Recommended Option: The following are the recommendations from CTUB staff and John Kunkle:

1) **Take an initial step to transition JCPSD single tier structure to a multiple tier structure.**
2) **Take an initial step to increase Charles Town rates by 5% to equalize with Ranson rates.**

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3) **Adopt the tiered structure approach with initial decrease of JCPSD by 7.5% and plan to equalize tiers over an 8-year period (4 steps).**
4) **Implement an annual review of stepped approach to determine residual surplus and ability to accelerate rate equalization.**
5) **Perform a cost-of-service study to identify most appropriate rate structure and rate equality between the customer classes.**

Advantages:
- Providing adequate/conservative sewer surplus and providing financial resources for projects under evaluation.
- Addresses noticeable reduction of bills for majority of customers that fall into average use classes and adjusts tiers to reflect this reduction.
- Achieves rate equalization more quickly than initial 5% increase for CT and 5% decrease for JCPSD and reflects the professional judgment that the JCPSD tariff will ultimately be tiered under a class cost of service study.
- More quickly achieves goal of a single, unified multiple tiered rate structure.
- Saves JCPSD Territory customers $324,000 annually.

Alternative Option: An alternative to the recommended option above is a more aggressive option which is evaluated below:
1) **Take an initial step to transition JCPSD single tier structure to multiple tier structure.**
2) **Take an initial step to increase Charles Town rates by 5% to equalize with Ranson rates.**
3) **Adopt a tiered structure approach with initial decrease of JCPSD by 10.96% that would set the JCPSD 1st tier rate to the Ranson and Charles Town 1st tier rate.**
4) **Implement an annual review of stepped approach to determine residual surplus and ability to accelerate rate equalization.**
5) **Perform a cost-of-service study to identify most appropriate rate structure and rate equality between the customer classes.**

Staff and Mr. Kunkle have discussed this more aggressive option and provide the following:

Advantages:
- Achieves rate equalization more quickly than the recommended option above.
- Saves JCPSD Territory customers $414,000 annually.

Disadvantages:
- In order to maintain the desired 130% Debt/Service Coverage ratio for the combined utility, there would be a more immediate need for Council to approve a rate increase for water at a minimum of 2.5%. This does not discount the fact that there have been discussions that the Water System will likely see a water increase within the next year or so, regardless of the discussion in this context. The consideration for those CTUB customers receiving both water and sewer is that this option would increase Charles Town combined bills by a much more material amount.
- Does not leave the Utility with adequate combined surplus without the water increase.

**Note that the Charles Town water and sewer rates were last increased in 2016.

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Charles Town Utility Board
Rate Equalization Revenue Loss Over 8 Year Equalization Period (4 Steps)
For the test year ended June 30, 2020

Initial Rate Reduction of 5% for 1st Tier With Proportionate Reduction in 2nd and 3rd Tiers - Equalization of Tiers Over 4 Steps - Residual Reduction of All Tiers By 5.9% Necessary During 8 Year Equalization Period - Includes 5% Charles Town Territory Increase

Step	Revenue Loss	Remaining Residual Surplus	Debt Service Coverage Ratio	
1	$ 148,000	$ 233,000	137%	
2	119,000	114,000	134%	
3	119,000	(5,000)	130%	
4	119,000	(124,000)	126%	Tiers Proportional to Former Ranson Territory
5.9% Residual Reduction	132,000	(256,000)	122%	Rates Equalized with Former Ranson Territory
Total	$ 637,000.00			

Initial Rate Reduction of 7.5% for 1st Tier With Proportionate Reduction in 2nd and 3rd Tiers - Equalization of Tiers Over 4 Steps - Residual Reduction of All Tiers By 3.4% Necessary During 8 Year Equalization Period - Includes 5% Charles Town Territory Increase

Step	Revenue Loss	Remaining Residual Surplus	Debt Service Coverage Ratio	
1	$ 214,000	$ 167,000	135%	
2	119,000	48,000	132%	
3	119,000	(71,000)	128%	
4	110,000	(181,000)	124%	Tiers Proportional to Former Ranson Territory
3.4% Residual Reduction	75,000	(256,000)	122%	Rates Equalized with Former Ranson Territory
Total	$ 637,000.00			

Initial Rate Reduction of 10.9% for 1st Tier With Proportionate Reduction in 2nd and 3rd Tiers - Equalization of Tiers Over 4 Steps - Residual Reduction of All Tiers By 0.0% Necessary During 8 Year Equalization Period - Includes 5% Charles Town Territory Increase

Step	Revenue Loss	Remaining Residual Surplus	Debt Service Coverage Ratio	
1	$ 304,000	$ 77,000	132%	
2	114,000	(37,000)	129%	
3	114,000	(151,000)	125%	
4	105,000	(256,000)	122%	Tiers Proportional to Former Ranson Territory
0.0% Residual Reduction	-	(256,000)	122%	Rates Equalized with Former Ranson Territory
Total	$ 637,000.00			

Initial Rate Reduction of 9.15% for 1st Tier With Proportionate Reduction in 2nd and 3rd Tiers - Equalization of Tiers Over 4 Steps - Residual Reduction of All Tiers By 1.75% Necessary During 8 Year Equalization Period - Includes 5% Charles Town Territory Increase

Step	Revenue Loss	Remaining Residual Surplus	Debt Service Coverage Ratio	
1	$ 257,000	$ 124,000	134%	
2	116,000	8,000	130%	
3	116,000	(108,000)	125%	
4	108,000	(216,000)	123%	Tiers Proportional to Former Ranson Territory
1.75% Residual Reduction	40,000	(256,000)	122%	Rates Equalized with Former Ranson Territory
Total	$ 637,000.00			

APPROVAL DRAFT
FOR DISCUSSION PURPOSES ONLY
J.C. KUNKLE & ASSOCIATES, A.C.

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Charles Town Utility Board

Analysis of Debt Service Coverage - MADS Coverage after 2000 A Maturity with New Project Financing

For the year ended June 30, 2020

Revision 6

As of January 6, 2021

	Water Department	Sewer Department	Total
Revenues	$ 4,582,880	$ 6,465,366	$ 11,048,246
Modification to Revenues:			
Interest	(44,947)	(47,503)	(92,450)
CIF & CAC Revenues	(35,512)	(249,115)	(284,627)
Operating Revenues	4,502,421	6,168,748	10,671,169
Expenses	4,446,543	5,443,194	9,889,737
Modifications to Expenses:			
Depreciation and amortization expense	(1,159,387)	(1,557,388)	(2,716,775)
Pension expense	(57,341)	(55,161)	(112,502)
Pension contractual payments	89,942	86,984	176,926
OPEB expense	(7,822)	(7,503)	(15,325)
OPEB contractual payments	28,461	27,300	55,761
Interest on Long Term Debt	(617,490)	(448,675)	(1,066,165)
Bond administrative fees on project debt	-	3,323	3,323
Operating Expenses Net of Non-cash Items and Interest Expense	2,722,906	3,492,074	6,214,980
Operating Income Available for Debt Service	1,779,515	2,676,674	4,456,189
Debt Service Expenditures:			
Principal Payments on Bond Issues	954,260	1,288,687	2,242,947
Interest Payments on Bond Issues	448,125	232,066	680,191
Principal Payment on Project Debt	-	99,820	99,820
Interest Payments on Project Debt	-	111,886	111,886
Total Debt Service Expenditures	1,402,385	1,732,459	3,134,844
Operating Income Available After Bond Debt Service	$ 377,130	$ 944,215	$ 1,321,345
Debt Service Coverage Ratio	126.89%	154.50%	142.15%
Required Debt Service Coverage Ratio	115.00%	115.00%	115.00%
Amount of Coverage in Excess of 130%	$ (43,586)	$ 424,477	$ 380,892

Project Financing Estimate:

	Principal	Interest	Admin. Fee	Total
$ 2,600,000 CWSRF .25% interest, .25% administrative fee, 40 years	$ 64,820	$ 6,036	$ 3,323	$ 74,179
$ 4,790,000 Public Bond Issue, 30 years	35,000	105,850	-	140,850
Total	$ 99,820	$ 111,886	$ 3,323	$ 215,029

Prepared by J.C. Kunkle and Associates, A.C.
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Charles Town Utility Board

Analysis of Debt Service Coverage - Equalization Coverage - New Options

For the year ended June 30, 2020

Revision 6

As of January 6, 2021

	Water Department	Sewer Department	Total
Revenues	$ 4,582,880	$ 6,465,366	$ 11,048,246
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Amount of Coverage in Excess of 130%	$ (43,586)	$ 424,477	$ 380,892

Potential Rate Adjustments

Non-tiering Adjustment

	Charles Town +5% Former JCPSD -5% W/O Structure Adjustment	Charles Town +2.5% Former JCPSD -5% W/O Structure Adjustment	Charles Town +5% Former JCPSD -7.5% W/O Structure Adjustment	Charles Town +2.5% Former JCPSD -7.5% W/O Structure Adjustment	Charles Town +5% Former JCPSD -10.9% W/O Structure Adjustment	Charles Town +2.5% Former JCPSD -10.9% W/O Structure Adjustment
Amount of Coverage in Excess of 130%	$ 380,892	$ 380,892	$ 380,892	$ 380,892	$ 380,892	$ 380,892
Charles Town Adjustment	110,000	55,000	110,000	55,000	110,000	55,000
Former JCPSD Adjustment	(137,000)	(137,000)	(206,000)	(206,000)	(300,000)	(300,000)
Residual surplus	$ 353,892	$ 298,892	$ 284,892	$ 229,892	$ 190,892	$ 135,892

Tiering Adjustment

	Charles Town +5% Former JCPSD Adopt Structure over 8 yrs. Top -5%	Charles Town +2.5% Former JCPSD Adopt Structure over 8 yrs. Top -5%	Charles Town +5% Former JCPSD Adopt Structure over 8 yrs. Top -7.5%	Charles Town +2.5% Former JCPSD Adopt Structure over 8 yrs. Top -7.5%	Charles Town +5% Former JCPSD Adopt Structure over 8 yrs. Top -10.9%	Charles Town +2.5% Former JCPSD Adopt Structure over 8 yrs. Top -10.9%
Amount of Coverage in Excess of 130%	$ 380,892	$ 380,892	$ 380,892	$ 380,892	$ 380,892	$ 380,892
Charles Town Adjustment	110,000	55,000	110,000	55,000	110,000	55,000
Former JCPSD Adjustment	(258,000)	(258,000)	(324,000)	(324,000)	(414,000)	(414,000)
Residual surplus	$ 232,892	$ 177,892	$ 166,892	$ 111,892	$ 76,892	$ 21,892

Prepared by J.C. Kunkle and Associates, A.C.
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DRAFT 2/16/2021 - Charles Town Utility Board
Current Monthly Water Bill Analysis
For the year ended June 30, 2020

Current CTUB Water Tariff	
3-Tier Rate Structure	
Gallons	**Rate per 1,000**
Min Bill < 2,000 (5/8 Meter)	$25.83
First 10,000 gallons	$10.33
Next 30,000 gallons	$8.79
Over 40,000 gallons	$6.94

CTUB Water Tariff (2.5% Increase)	
3-Tier Rate Structure	
Gallons	**Rate per 1,000**
Min Bill < 2,000 (5/8 Meter)	$26.48
First 10,000 gallons	$10.59
Next 30,000 gallons	$9.01
Over 40,000 gallons	$7.11

Current Rate Structure

		Total Water Bill per Month		
		Current CTUB (Water)	CTUB Water (2.5% Increase)	
	Gallons per Month			Monthly Increase
	0-2,000	$25.83	$26.48	$0.65
*Residential Average	3,500	$36.16	$37.06	$0.90
	6,000	$61.98	$63.53	$1.55
	8,000	$82.64	$84.71	$2.07
	10,000	$103.30	$105.88	$2.58
	12,000	$120.88	$123.90	$3.02
*Commercial Average	18,000	$173.62	$177.96	$4.34
	30,000	$279.10	$286.08	$6.98
	40,000	$367.00	$376.18	$9.17

Represents largest amount of CTUB customer base (residential and commercial)

Notes:
1) Residential customer average 3,500 gallons per month & commercial customer average 18,000 per month

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DRAFT 02/17/21 - Charles Town Utility Board
Current Monthly Sewer Bill Analysis
For the year ended June 30, 2020

Current CTUB Tariff
3-Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$28.14
1st 2,000 gallons	$14.07
Next 8,000 gallons	$10.12
Over 10,000 gallons	$9.20

Current Ranson Tariff
3-Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$29.58
1st 2,000 gallons	$14.79
Next 8,000 gallons	$10.64
Over 10,000 gallons	$9.67

Current JCPSD Tariff
Single Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$33.22
Per 1,000 gallons	$16.61

Current Rate Structure

		Total Sewer Bill per Month			Customer break-down	
		CTUB	Ranson	JCPSD		
	Gallons per Month				Residential	Commercial
	0-2,000	$28.14	$29.58	$33.22	2,279	320
*Residential Average	3,500	$43.32	$45.54	$58.14	2,159	72
	6,000	$68.62	$72.14	$99.66	1,936	75
	8,000	$88.86	$93.42	$132.88	484	34
	10,000	$109.10	$114.70	$166.10	158	23
	12,000	$127.50	$134.04	$199.32	61	16
*Commercial Average	18,000	$182.70	$192.06	$298.98	43	33
	30,000	$293.10	$308.10	$498.30	12	33
	40,000	$385.10	$404.80	$664.40	7	66
					7,139	**672**

Represents largest amount of CTUB customer base usage (residential and commercial)

Notes:
1) Residential customer average 3,500-4,000 gallons per month & commercial customer average 18,000 per month

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DRAFT 02/17/21 - Charles Town Utility Board
Equalization of JCPSD Rates to Ranson & CTUB w/o Tiering Adjustment
For the year ended June 30, 2020

CTUB (5% Increase) & Ranson Tariff
3-Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$29.58
1st 2,000 gallons	$14.79
Next 8,000 gallons	$10.64
Over 10,000 gallons	$9.67

JCPSD Tariff (5% Decrease)
Single Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$31.56
Per 1,000 gallons	$15.78

JCPSD Tariff (10.9% Decrease)
Single Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$29.58
Per 1,000 gallons	$14.79

Rate Structure w/o Tiering Adjustment

Total Sewer Bill per Month

		CTUB (5%) /Ranson	Current JCPSD	JCPSD -5%	JCPSD -10.9%	Customer break-down Residential	Customer break-down Commercial
	Gallons per Month						
	0-2,000	$29.58	$33.22	$31.56	$29.58	2,279	320
*Residential Average	3,500	$45.54	$58.14	$55.23	$51.77	2,159	72
	6,000	$72.14	$99.66	$94.68	$88.74	1,936	75
	8,000	$93.42	$132.88	$126.24	$118.32	484	34
	10,000	$114.70	$166.10	$157.80	$147.90	158	23
	12,000	$134.04	$199.32	$189.36	$177.48	61	16
*Commercial Average	18,000	$192.06	$298.98	$284.04	$266.22	43	33
	30,000	$308.10	$498.30	$473.40	$443.70	12	33
	40,000	$404.80	$664.40	$631.20	$591.60	7	66
						7,139	**672**

Represents largest amount of CTUB customer base (residential and commercial)

**Residential customer average 3,500-4,000 gallons per month & commercial customer average 18,000 per month*
***CTUB & Ranson are equalized for purposes of this schedule*

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DRAFT 02/17/21 - Charles Town Utility Board
Equalization of JCPSD Rates to Ranson & CTUB with Tiering Adjustment - 8 Years
For the year ended June 30, 2020

CTUB (5% Increase) & Ranson Tariff
3-Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$29.58
1st 2,000 gallons	$14.79
Next 8,000 gallons	$10.64
Over 10,000 gallons	$9.67

JCPSD Tariff (5% Decrease) & Adopt Tiering Structure
3-Tier Rate Structure

Gallons	*Current* Single Tier	*Step 1* Rate per 1,000	*Step 2* Rate per 1,000	*Step 3* Rate per 1,000	*Step 4* Rate per 1,000
Min Bill < 2,000	33.22	$31.56	$31.56	$31.56	$31.56
Per 1,000 gallons	16.61				
1st 2,000 gallons		$15.78	$15.78	$15.78	$15.78
Next 8,000 gallons		$14.68	$13.58	$12.48	$11.38
Over 10,000 gallons		$14.36	$12.99	$11.62	$10.25

Rate Structure with (5% Decrease) & Adopt Tiering Structure - 8 Years

Total Sewer Bill per Month

	CTUB	JCPSD Current	Step 1	Step 2	Step 3	Step 4	Customer break-down Residential	Customer break-down Commercial
Gallons per Month								
0-2,000	$29.58	$33.22	$31.56	$31.56	$31.56	$31.56	2,279	320
**Residential Average* 3,500	$45.54	$58.14	$53.58	$51.93	$50.28	$48.63	2,159	72
6,000	$72.14	$99.66	$90.28	$85.88	$81.48	$77.08	1,936	75
8,000	$93.42	$132.88	$119.64	$113.04	$106.44	$99.84	484	34
10,000	$114.70	$166.10	$149.00	$140.20	$131.40	$122.60	158	23
12,000	$134.04	$199.32	$177.72	$166.18	$154.64	$143.10	61	16
**Commercial Average* 18,000	$192.06	$298.98	$263.88	$244.12	$224.36	$204.60	43	33
30,000	$308.10	$498.30	$436.20	$400.00	$363.80	$327.60	12	33
40,000	$404.80	$664.40	$579.80	$529.90	$480.00	$430.10	7	66
							7,139	**672**

Represents largest amount of CTUB customer base (residential and commercial)

**Residential customer average 3,500-4,000 gallons per month & commercial customer average 18,000 per month*
***CTUB & Ranson are equalized for purposes of this schedule*

DRAFT

DRAFT 02/17/21 - Charles Town Utility Board
Equalization of JCPSD Rates to Ranson & CTUB with Tiering Adjustment - 8 Years
For the year ended June 30, 2020

CTUB (5% Increase) & Ranson Tariff
3-Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$29.58
1st 2,000 gallons	$14.79
Next 8,000 gallons	$10.64
Over 10,000 gallons	$9.67

JCPSD Tariff (7.5% Decrease) & Adopt Tiering Structure
3-Tier Rate Structure

Gallons	*Current* Single Tier	*Step 1* Rate per 1,000	*Step 2* Rate per 1,000	*Step 3* Rate per 1,000	*Step 4* Rate per 1,000
Min Bill < 2,000	33.22	$30.72	$30.72	$30.72	$30.72
Per 1,000 gallons	16.61				
1st 2,000 gallons		$15.36	$15.36	$15.36	$15.36
Next 8,000 gallons		$14.29	$13.21	$12.13	$11.05
Over 10,000 gallons		$13.98	$12.60	$11.21	$10.04

Rate Structure with (7.5% Decrease) & Adopt Tiering Structure - 8 Years

Total Sewer Bill per Month

	CTUB	JCPSD Current	Step 1	Step 2	Step 3	Step 4	Customer break-down Residential	Customer break-down Commercial
Gallons per Month								
0-2,000	$29.58	$33.22	$30.72	$30.72	$30.72	$30.72	2,279	320
**Residential Average* 3,500	$45.54	$58.14	$52.16	$50.54	$48.92	$47.30	2,159	72
6,000	$72.14	$99.66	$87.88	$83.56	$79.24	$74.92	1,936	75
8,000	$93.42	$132.88	$116.46	$109.98	$103.50	$97.02	484	34
10,000	$114.70	$166.10	$145.04	$136.40	$127.76	$119.12	158	23
12,000	$134.04	$199.32	$173.00	$161.60	$150.18	$139.20	61	16
**Commercial Average* 18,000	$192.06	$298.98	$256.88	$237.20	$217.44	$199.44	43	33
30,000	$308.10	$498.30	$424.64	$388.40	$351.96	$319.92	12	33
40,000	$404.80	$664.40	$564.44	$514.40	$464.06	$420.32	7	66
							7,139	**672**

Represents largest amount of CTUB customer base (residential and commercial)

**Residential customer average 3,500-4,000 gallons per month & commercial customer average 18,000 per month*
***CTUB & Ranson are equalized for purposes of this schedule*

DRAFT

DRAFT 02/17/21 - Charles Town Utility Board
Equalization of JCPSD Rates to Ranson & CTUB with Tiering Adjustment - 8 Years
For the year ended June 30, 2020

CTUB (5% Increase) & Ranson Tariff
3-Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$29.58
1st 2,000 gallons	$14.79
Next 8,000 gallons	$10.64
Over 10,000 gallons	$9.67

JCPSD Tariff (10.96% Decrease) & Adopt Tiering Structure
3-Tier Rate Structure

Gallons	*Current* Single Tier	*Step 1* Rate per 1,000	*Step 2* Rate per 1,000	*Step 3* Rate per 1,000	*Step 4* Rate per 1,000
Min Bill < 2,000	33.22	$29.58	$29.58	$29.58	$29.58
Per 1,000 gallons	16.61				
1st 2,000 gallons		$14.79	$14.79	$14.79	$14.79
Next 8,000 gallons		$13.75	$12.72	$11.68	$10.64
Over 10,000 gallons		$13.46	$12.13	$10.80	$9.67

Rate Structure with (10.96% Decrease) & Adopt Tiering Structure - 8 Years

Total Sewer Bill per Month

	CTUB	JCPSD Current	Step 1	Step 2	Step 3	Step 4	Customer break-down Residential	Customer break-down Commercial
Gallons per Month								
0-2,000	$29.58	$33.22	$29.58	$29.58	$29.58	$29.58	2,279	320
**Residential Average* 3,500	$45.54	$58.14	$50.21	$48.66	$47.10	$45.54	2,159	72
6,000	$72.14	$99.66	$84.58	$80.46	$76.30	$72.14	1,936	75
8,000	$93.42	$132.88	$112.08	$105.90	$99.66	$93.42	484	34
10,000	$114.70	$166.10	$139.58	$131.34	$123.02	$114.70	158	23
12,000	$134.04	$199.32	$166.50	$155.60	$144.62	$134.04	61	16
**Commercial Average* 18,000	$192.06	$298.98	$247.26	$228.38	$209.42	$192.06	43	33
30,000	$308.10	$498.30	$408.78	$373.94	$339.02	$308.10	12	33
40,000	$404.80	$664.40	$543.38	$495.24	$447.02	$404.80	7	66
							7,139	**672**

Represents largest amount of CTUB customer base (residential and commercial)

**Residential customer average 3,500-4,000 gallons per month & commercial customer average 18,000 per month*
***CTUB & Ranson are equalized for purposes of this schedule*

DRAFT

DRAFT 02/17/21 - Charles Town Utility Board
Equalization of JCPSD Rates to Ranson & CTUB w/o Tiering Adjustment
For the year ended June 30, 2020

CTUB (5% Increase) & Ranson Tariff
3-Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$29.58
1st 2,000 gallons	$14.79
Next 8,000 gallons	$10.64
Over 10,000 gallons	$9.67

JCPSD Tariff (5% Decrease)
Single Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$31.56
Per 1,000 gallons	$15.78

JCPSD Tariff (10.9% Decrease)
Single Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$29.58
Per 1,000 gallons	$14.79

JCPSD Tariff (10% Decrease)
Single Tier Rate Structure

Gallons	Rate per 1,000
Min Bill < 2,000	$29.90
Per 1,000 gallons	$14.95

						A	B	C		
						Rate Structure w/o Tiering Adjustment	**Rate with tiering**	**Rate with tiering**		
						No tier				
			Total Sewer Bill per Month							
		CTUB (5%) /Ranson	Current JCPSD	JCPSD -5%	JCPSD -10.9%	JCPSD -10%	JCPSD -7.5%	JCPSD -10.9%		
							Step 1	Step 1	Customer break-down	
	Gallons per Month								Residential	Commercial
	0-2,000	$29.58	$33.22	$31.56	$29.58	$29.90	30.72	29.58	2,279	320
*Residential Average	3,500	$45.54	$58.14	$55.23	$51.77	$52.33	52.16	50.21	2,159	72
	6,000	$72.14	$99.66	$94.68	$88.74	$89.70	87.88	84.58	1,936	75
	8,000	$93.42	$132.88	$126.24	$118.32	$119.60	116.46	112.08	484	34
	10,000	$114.70	$166.10	$157.80	$147.90	$149.50	145.04	139.58	158	23
	12,000	$134.04	$199.32	$189.36	$177.48	$179.40	173.00	166.50	61	16
*Commercial Average	18,000	$192.06	$298.98	$284.04	$266.22	$269.10	256.88	247.26	43	33
	30,000	$308.10	$498.30	$473.40	$443.70	$448.50	424.64	408.78	12	33
	40,000	$404.80	$664.40	$631.20	$591.60	$598.00	564.44	543.38	7	66
									7,139	**672**

**Residential customer average 3,500-4,000 gallons per month & commercial customer average 18,000 per month*
***CTUB & Ranson are equalized for purposes of this schedule*

DRAFT

DRAFT 02/17/21 - Charles Town Utility Board
Forecast of Rate Equalization
Test Year ended June 30, 2020

OPTION 1 - CTUB/Ranson Equalized, JCPSD Tariff 5% Decrease w/o Tiering Adjustment or 5% Decrease Adopt Tiering Structure over 8 years

Sewer Charge per Month

						FORECAST OF FUTURE TIERED STEP RATE REDUCTIONS		
			Option 1A Single Tier - 5% JCPSD Decrease		**Option 1B** Adopt 3-Tier 5% JCPSD Decrease			
	CTUB/Ranson	JCPSD Current						
Gallons per Month					**Step 1**	Step 2	Step 3	Step 4 CTUB/Ranson/JCPSD Rate **
1,900	$29.58	$33.22	$31.56		**$31.56**	$31.56	$31.56	$31.56
3,500	$45.54	$58.14	$55.23		**$53.58**	$51.93	$50.28	$48.63
6,000	$72.14	$99.66	$94.68		**$90.28**	$85.88	$81.48	$77.08
8,000	$93.42	$132.88	$126.24		**$119.64**	$113.04	$106.44	$99.84
10,000	$114.70	$166.10	$157.80		**$149.00**	$140.20	$131.40	$122.60
12,000	$134.04	$199.32	$189.36		**$177.72**	$166.18	$154.64	$143.10
18,000	$192.06	$298.98	$284.04		**$263.88**	$244.12	$224.36	$204.60
30,000	$308.10	$498.30	$473.40		**$436.20**	$400.00	$363.80	$327.60
40,000	$404.80	$664.40	$631.20		**$579.80**	$529.90	$480.00	$430.10
						** Residual 6% rate differential to be resolved between Steps 2 and 4.		
			$353,892.00		**$232,892.00**			
			Residual Surplus		**Residual Surplus**			

OPTION 2 - CTUB/Ranson Equalized and JCPSD Tariff 7.5% Decrease w/o Tiering Adjustment or 7.5% Decrease Adopt Tiering Structure over 8 years

Sewer Charge per Month

						FORECAST OF FUTURE TIERED STEP RATE REDUCTIONS		
			Option 2A Single Tier - 7.5% JCPSD Decrease		**Option 2B** Adopt 3-Tier Structure 7.5% JCPSD Decrease			
	CTUB/Ranson	JCPSD Current						
Gallons per Month					**Step 1**	Step 2	Step 3	Step 4 CTUB/Ranson/JCPSD Rate **
1,900	$29.58	$33.22	$30.72		**$30.72**	$30.72	$30.72	$30.72
3,500	$45.54	$58.14	$53.76		**$52.16**	$50.54	$48.92	$47.30
6,000	$72.14	$99.66	$92.16		**$87.88**	$83.56	$79.24	$74.92
8,000	$93.42	$132.88	$122.88		**$116.46**	$109.98	$103.50	$97.02
10,000	$114.70	$166.10	$153.60		**$145.04**	$136.40	$127.76	$119.12
12,000	$134.04	$199.32	$184.32		**$173.00**	$161.60	$150.18	$139.20
18,000	$192.06	$298.98	$276.48		**$256.88**	$237.20	$217.44	$199.44
30,000	$308.10	$498.30	$460.80		**$424.64**	$388.40	$351.96	$319.92
40,000	$404.80	$664.40	$614.40		**$564.44**	$514.40	$464.06	$420.32
						** Residual 3.5% rate differential to be resolved between Steps 2 and 4.		
			$284,892.00		**$166,892.00**			
			Residual Surplus		**Residual Surplus**			

OPTION 3 - CTUB/Ranson Equalized, JCPSD Tariff 10.96% Decrease w/o Tiering Adjustment or 10.96% Decrease Adopt Tiering Structure over 8 years

Sewer Charge per Month

						FORECAST OF FUTURE TIERED STEP RATE REDUCTIONS		
			Option 3A 10.96% JCPSD Decrease Single Tier		**Option 3B** Adopt 3 - Tier Structure 10.96% JCPSD Decrease			
	CTUB/Ranson	JCPSD Current						
Gallons per Month					Step 1	Step 2	Step 3	Step 4 CTUB/Ranson/JCPSD Rate
1,900	$29.58	$33.22	$29.58		$29.58	$29.58	$29.58	$29.58
3,500	$45.54	$58.14	$51.77		$50.21	$48.66	$47.10	$45.54
6,000	$72.14	$99.66	$88.74		$84.58	$80.46	$76.30	$72.14
8,000	$93.42	$132.88	$118.32		$112.08	$105.90	$99.66	$93.42
10,000	$114.70	$166.10	$147.90		$139.58	$131.34	$123.02	$114.70
12,000	$134.04	$199.32	$177.48		$166.50	$155.60	$144.62	$134.04
18,000	$192.06	$298.98	$266.22		$247.26	$228.38	$209.42	$192.06
30,000	$308.10	$498.30	$443.70		$408.78	$373.94	$339.02	$308.10
40,000	$404.80	$664.40	$591.60		$543.38	$495.24	$447.02	$404.80
			$190,892.00		**$76,892.00**			
			Residual Surplus		**Residual Surplus**			

Notes:
1) Residential customer average 3,500-4,000 gallons per month & commercial customer average 18,000 per month.
2) A Class Cost of Service will be performed after Step 1 which may alter the future forecast of tiered step rates.
3) The forecast of future tiered step rate reductions is an esimtate and may change due to economic, cash flow or other factors.

CHANGE ORDER

Change Order No. 9

Date of Issuance:	**February 19, 2021**	Effective Date:	**February 24, 2021**
Owner:	**Charles Town Utility Board**	Owner's Contract No.:	
Contractor:	**Snyder Environmental Services, Inc.**	Contractor's Project No.:	
Engineer:	**Hatch Associates Consultants, Inc.**	Engineer's Project No.:	**H-359787**
Project:	**Route 9 Sewer Project**	Contract Name:	**Route 9 Sewer Project**

The Contract is modified as follows upon execution of this Change Order: **Contract Price changed to reflect the increase or decrease in Bid Item quantities.**

CHANGE IN CONTRACT PRICE	**CHANGE IN CONTRACT TIMES** *[note changes in Milestones if applicable]*
Original Contract Price: **$ 8,453,848.00**	Original Contract Times: Substantial Completion: **210 days** Ready for Final Payment: **270 days**
~~[Increase]~~ [Decrease] from previously approved Change Orders No. 1 to No. 8 : **$ <1,475,790.98>**	[Increase] [~~Decrease~~] from previously approved Change Orders No. 1 to No. 8 : Substantial Completion: **54 days** Ready for Final Payment: **80 days**
Contract Price prior to this Change Order: **$ 6,978,057.02**	Contract Times prior to this Change Order: Substantial Completion: **264 days** Ready for Final Payment: **350 days**
[Increase] ~~[Decrease]~~ of this Change Order: **$ 2,474.70**	[Increase] ~~[Decrease]~~ of this Change Order: Substantial Completion: **0 days** Ready for Final Payment: **0 days**
Contract Price incorporating this Change Order: **$ 6,980,531.72**	Contract Times with all approved Change Orders: Substantial Completion: **264 days (November 30, 2020)** Ready for Final Payment: **350 days (February 24, 2021)**

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By:	By:	By:
Engineer (if required)	Owner (Authorized Signature)	Contractor (Authorized Signature)
Title: Sr. Project Manager	Title:	Title: VICE PRESIDENT
Date: 2/19/2021	Date:	Date: 2/19/2021

MEMORANDUM OF NEGOTIATION
FOR CHANGE ORDER

PROJECT NAME: Route 9 Sewer Project
CONTRACT NO. _____ **CHANGE ORDER NO.** 9 **DATE:** February 19,2021
LOCATION: City of Charles Town, WV
PARTIES ATTENDING: CTUB, Snyder Environmental Service, Inc., and Hatch

DESCRIPTION OF CHANGE ORDER:

Increase Contract Price by $2,474.70 to balance the actual increases and decreases in the Bid Items measured in the field. The yellow highlighted lines from the pay application show the Bid Items where field measurements were different than bid quantities. Negative values in Column G represents an increase in quantity, whereas a positive value represents a decrease in field quantity.

CONTRACTOR'S COMMENTS:

In favor of this change order that increases the Contract Price.

ENGINEER'S COMMENTS:

In favor of this change order that increases the Contract Price.

OWNER'S COMMENTS:

In favor of this change order that increases the Contract Price.

RESULTS:

All parties are agreeable to Change Order No. 9 which increases the Contract Price by $2,474.70.

CONTRACT PRICE CHANGE: $2,474.70
CONTRACT TIME CHANGE: 0 days

Signatures of Acceptance

Contractor: Brandon Duriez

Engineer: Richard Travers, PE

Owner: _____

Progress Estimate - Unit Price Work

Contractor's Application

For (Contract):	Route 9 Sewer Project Ranson, WV	Application Number:	
Application Period:		Application Date:	

Engineer's Project Number: H-359787

A					B	C		D		E	F		G
						Work Completed							
Bid Item Code	Description	Item Quantity	Units	Unit Price	Scheduled Value ($)	Quantity Installed this Period	Value of Work Installed This Period	Quantity Installed to Date	Value of Work Installed to Date	Materials PresentlyStored (not in C or D)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)
100	**MOBILIZATION**												
101	MOBILIZE EQUIPMENT	1.00	LS	$ 300,000.00	$ 300,000.00	0	$ -	1.00	$300,000.00		$300,000.00	100.0%	$ -
102	BLASTING STAKEOUT	1.00	LS	$ 75,000.00	$ 75,000.00	0	$ -	1.00	$75,000.00		$75,000.00	100.0%	$ -
103	CONSTRUCTION STAKEOUT	1.00	LS	$ 75,000.00	$ 75,000.00	0	$ -	1.00	$75,000.00		$75,000.00	100.0%	$ -
104	VIDEO DOCUMENTATION	1.00	LS	$ 25,000.00	$ 25,000.00	0	$ -	1.00	$25,000.00		$25,000.00	100.0%	$ -
105	SUBMITTALS	1.00	LS	$ 25,000.00	$ 25,000.00	0	$ -	1.00	$25,000.00		$25,000.00	100.0%	$ -
106	BONDS & INSURANCE	1.00	LS	$ 100,000.00	$ 100,000.00	0	$ -	1.00	$100,000.00		$100,000.00	100.0%	$ -
200	TRAFFIC CONTROL	1.00	LS	$ 27,700.00	$ 27,700.00	0	$ -	1.00	$27,700.00		$27,700.00	100.0%	$ -
300	EROSION AND SEDIMENT CONTROL	1.00	LS	$ 60,000.00	$ 60,000.00	0	$ -	1.00	$60,000.00		$60,000.00	100.0%	$ -
400	GRAVITY SEWER 6" & 8", OPEN CUT	1,085.00	LF	$ 107.00	$ 116,095.00	0	$ -	1101.00	$117,807.00		$117,807.00	101.5%	$ (1,712.00)
500	GRAVITY SEWER 10", OPEN CUT	1,014.00	LF	$ 101.00	$ 102,414.00	0	$ -	1025.00	$103,525.00		$103,525.00	101.1%	$ (1,111.00)
600	GRAVITY SEWER 12", OPEN CUT	3,567.00	LF	$ 119.00	$ 424,473.00	0	$ -	3588.00	$426,972.00		$426,972.00	100.6%	$ (2,499.00)
700	GRAVITY SEWER 15", OPEN CUT	3,776.00	LF	$ 130.00	$ 490,880.00	0	$ -	3776.00	$490,880.00		$490,880.00	100.0%	$ -
800	FORCE-MAIN (6"-4") OPEN CUT	4,149.00	LF	$ 121.00	$ 502,029.00	0	$ -	4122.00	$498,762.00		$498,762.00	99.3%	$ 3,267.00
900	FORCE-MAIN (6"-4") IN EX. RT. 9 CASING	265.00	LF	$ 252.00	$ 66,780.00	0	$ -	265.00	$66,780.00		$66,780.00	100.0%	$ -
1000	FORCE-MAIN (6"-4") AIR VAULT & INTERNALS	6.00	EA	$ 8,370.00	$ 50,220.00	0	$ -	8.00	$66,960.00		$66,960.00	133.3%	$ (16,740.00)
1300	FORCE-MAIN (8"-6"-8") OPEN CUT	11,646.00	LF	$ 93.00	$ 1,083,078.00	0	$ -	11675.00	$1,085,775.00		$1,085,775.00	100.2%	$ (2,697.00)
1400	FORCE-MAIN (8"-6"-8") AIR VAULT & INTERNALS	21.00	EA	$ 8,370.00	$ 175,770.00	0	$ -	21.00	$175,770.00		$175,770.00	100.0%	$ -
1700	FORCE-MAIN MISC. DIP FITTINGS, IF DIRECTED	2,000.00	LBS	$ 7.00	$ 14,000.00	0	$ -						$ 14,000.00
1800	CONCRETE CLASS B, IF DIRECTED	100.00	CY	$ 435.00	$ 43,500.00	0	$ -						$ 43,500.00
1900	CASING 24" BORED, W/ 10" GRAVITY SEWER	62.00	LF	$ 540.00	$ 33,480.00	0	$ -	65.00	$35,100.00		$35,100.00	104.8%	$ (1,620.00)
2000	CASING 24" BORED, W/ 12" GRAVITY SEWER	94.00	LF	$ 532.00	$ 50,008.00	0	$ -	94.00	$50,008.00		$50,008.00	100.0%	$ -
2100	CASING 24" BORED, W/ 6"-4"-6" FORCE-MAINS	130.00	LF	$ 596.00	$ 77,480.00	0	$ -	110.00	$65,560.00		$65,560.00	84.6%	$ 11,920.00
2200	CASING 30" BORED, W/ 15" GRAVITY SEWER	162.00	LF	$ 779.00	$ 126,198.00	0	$ -	166.00	$129,314.00		$129,314.00	102.5%	$ (3,116.00)
2300	CASING 36" BORED, W/ 8"-6"-8" FORCE-MAINS	141.00	LF	$ 692.00	$ 97,572.00	0	$ -	205.00	$141,860.00		$141,860.00	145.4%	$ (44,288.00)
2600	MANHOLE, 4'-DIA. (UP TO 6' DEEP)	44.00	EA	$ 7,630.00	$ 335,720.00	0	$ -	44.00	$335,720.00		$335,720.00	100.0%	$ -
2700	MANHOLE BV-03 (DOGHOUSE), 4'-DIA. (UP TO 6' DEEP)	1.00	EA	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$ -
2800	MANHOLE DC-02 (DOGHOUSE), 4'-DIA. (UP TO 6' DEEP)	1.00	EA	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$ -
2900	MANHOLE EXTENSION, 4'-DIA.	130.00	VF	$ 167.00	$ 21,710.00	0	$ -	127.10	$21,225.70		$21,225.70	97.8%	$ 484.30
3000	MANHOLE DROP CONNECTION, TYPE A	1.00	EA	$ 3,550.00	$ 3,550.00	0	$ -	1.00	$3,550.00		$3,550.00	100.0%	$ -
3100	MANHOLE DROP CONNECTION, TYPE B	5.00	EA	$ 5,000.00	$ 25,000.00	0	$ -	5.00	$25,000.00		$25,000.00	100.0%	$ -
3200	MANHOLE BV-22, FOR TRANSITION	1.00	EA	$ 13,500.00	$ 13,500.00	0	$ -	1.00	$13,500.00		$13,500.00	100.0%	$ -
3300	MANHOLE CH-20, FOR TRANSITION	1.00	EA	$ 13,500.00	$ 13,500.00	0	$ -	1.00	$13,500.00		$13,500.00	100.0%	$ -
3400	SEWER MARKER	98.00	EA	$ 105.00	$ 10,290.00	0	$ -	54.00	$5,670.00		$5,670.00	55.1%	$ 4,620.00
3500	CONNECTION TO EX. FACILITIES, AT MANHOLE 11V	1.00	LS	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$ -
3600	CONNECTION TO EX. FACILITIES, AT MANHOLE BV-03	1.00	LS	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$ -
3700	CONNECTION TO EX. FACILITIES, AT MANHOLE DC-02	1.00	LS	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$ -
3800	**PUMP STATION, WAR ADMIRAL**					0	$ -						$ -
3801	MOBILIZATION	1.00	LS	$ 21,700.00	$ 21,700.00	0	$ -	1.00	$21,700.00		$21,700.00	100.0%	$ -
3802	EXCAVATION	1.00	LS	$ 120,000.00	$ 120,000.00	0	$ -	1.00	$120,000.00		$120,000.00	100.0%	$ -
3803	SET WET WELL	1.00	LS	$ 50,000.00	$ 50,000.00	0	$ -	1.00	$50,000.00		$50,000.00	100.0%	$ -
3804	VALVE VAULT	1.00	LS	$ 75,000.00	$ 75,000.00	0	$ -	1.00	$75,000.00		$75,000.00	100.0%	$ -
3805	BACKFILL	1.00	LS	$ 25,000.00	$ 25,000.00	0	$ -	1.00	$25,000.00		$25,000.00	100.0%	$ -
3806	WET WELL AND VALVE VAULT PIPING	1.00	LS	$ 66,000.00	$ 66,000.00	0	$ -	1.00	$66,000.00		$66,000.00	100.0%	$ -
3807	AIR INJECTION VAULT & EQUIPMENT	1.00	LS	$ 54,675.00	$ 54,675.00	0	$ -	1.00	$54,675.00		$54,675.00	100.0%	$ -
3808	PUMPS	1.00	LS	$ 195,000.00	$ 195,000.00	0	$ -	1.00	$195,000.00		$195,000.00	100.0%	$ -
3809	CONTROLS	1.00	LS	$ 110,000.00	$ 110,000.00	0	$ -	1.00	$110,000.00		$110,000.00		$ -
3810	FETTERVILLE BUILDING	1.00	LS	$ 53,100.00	$ 53,100.00	0	$ -	1.00	$53,100.00		$53,100.00	100.0%	$ 0.00
3811	GENERATOR PAD	1.00	LS	$ 10,000.00	$ 10,000.00	0	$ -	1.00	$10,000.00		$10,000.00	100.0%	$ -
3812	GENERATOR	1.00	LS	$ 67,500.00	$ 67,500.00	0	$ -	1.00	$67,500.00		$67,500.00	100.0%	$ -
3813	ELECTRIC	1.00	LS	$ 167,500.00	$ 167,500.00	0	$ -	1.00	$167,500.00		$167,500.00	100.0%	$ -
3814	START UP	1.00	LS	$ 20,000.00	$ 20,000.00	0	$ -	1.00	$20,000.00		$20,000.00	100.0%	$ -

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Progress Estimate - Unit Price Work

Contractor's Application

For (Contract):	Route 9 Sewer Project Ranson, WV	Application Number:	
Application Period:		Application Date:	
Engineer's Project Number: H-359787			

A					B	C		D		E	F		G
Bid Item Code	Description	Item Quantity	Units	Unit Price	Scheduled Value ($)	Work Completed: Quantity Installed this Period	Work Completed: Value of Work Installed This Period	Work Completed: Quantity Installed to Date	Work Completed: Value of Work Installed to Date	Materials PresentlyStored (not in C or D)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)
3815	PAVING	1.00	LS	$ 33,000.00	$ 33,000.00	0.25	$ 8,250.00	1.00	$33,000.00		$33,000.00	100.0%	$ -
3816	RESTORATION	1.00	LS	$ 22,590.00	$ 22,590.00	0	$ -	1.00	$22,590.00		$22,590.00	100.0%	$ -
3817	FENCE	1.00	LS	$ 15,000.00	$ 15,000.00	0	$ -	1.00	$15,000.00		$15,000.00	100.0%	$ -
4000	RESTORATION, STATE (WVDOH) ROAD	290.00	SY	$ 76.00	$ 22,040.00	0	$ -	70.50	$5,358.00		$5,358.00	24.3%	$ 16,682.00
4100	RESTORATION, ASPHALT DRIVEWAY	320.00	SY	$ 62.00	$ 19,840.00	0	$ -	328.00	$20,336.00		$20,336.00	102.5%	$ (496.00)
4200	RESTORATION, ASPHALT BIKE PATH	140.00	SY	$ 315.00	$ 44,100.00	0	$ -	140.00	$44,100.00		$44,100.00	100.0%	$ -
4300	RESTORATION, GRAVEL ROAD OR DRIVE	2,170.00	SY	$ 15.00	$ 32,550.00	0	$ -	2170.00	$32,550.00		$32,550.00	100.0%	$ -
4400	RESTORATION, UNIMPROVED (GRASS) SURFACE	80,460.00	SY	$ 3.00	$ 241,380.00	0	$ -	74946.00	$224,838.00		$224,838.00	93.1%	$ 16,542.00
4500	CULVERT 12" TO 30", OPEN CUT	60.00	LF	$ 150.00	$ 9,000.00	0	$ -	60.00	$9,000.00		$9,000.00	100.0%	$ -
4600	ABANDONMENT OF WATER WELL	1.00	LS	$ 3,000.00	$ 3,000.00	0	$ -	2.00	$6,000.00		$6,000.00	200.0%	$ (3,000.00)
4700	EXCAVATION AND BACKFILLING BELOW SUBGRADE	500.00	CY	$ 45.00	$ 22,500.00	0	$ -						$ 22,500.00
4800	ALLOWANCE - SINKHOLE REPAIR, SOIL FOR CAP	25.00	CY	$ 30.00	$ 750.00	0	$ -						$ 750.00
4900	ALLOWANCE - SINKHOLE REPAIR, CLASS 10 AGGREGATE	25.00	CY	$ 50.00	$ 1,250.00	0	$ -						$ 1,250.00
5000	ALLOWANCE - SINKHOLE REPAIR, CLASS 1 AGGREGATE BAS	25.00	CY	$ 50.00	$ 1,250.00	0	$ -						$ 1,250.00
5100	ALLOWANCE - SINKHOLE REPAIR, SPECIAL ROCK FILL	25.00	CY	$ 50.00	$ 1,250.00	0	$ -						$ 1,250.00
5200	ALLOWANCE - SINKHOLE REPAIR, RIP-RAP	25.00	CY	$ 75.00	$ 1,875.00	0	$ -						$ 1,875.00
5300	ALLOWANCE - SINKHOLE REPAIR, IMPERVIOUS CORE	500.00	SF	$ 10.00	$ 5,000.00	0	$ -						$ 5,000.00
5400	**PUMP STATION, NORTHPORT**					0	$ -						$ -
5401	MOBILIZATION	1.00	LS	$ 20,022.00	$ 20,022.00	0	$ -	1.00	$20,022.00		$20,022.00	100.0%	$ -
5402	EXCAVATION	1.00	LS	$ 100,000.00	$ 100,000.00	0	$ -	1.00	$100,000.00		$100,000.00	100.0%	$ -
5403	SET WET WELL	1.00	LS	$ 30,223.49	$ 30,223.49	0	$ -	1.00	$30,223.49		$30,223.49	100.0%	$ -
5404	VALVE VAULT	1.00	LS	$ 59,400.00	$ 59,400.00	0	$ -	1.00	$59,400.00		$59,400.00	100.0%	$ -
5405	BACKFILL	1.00	LS	$ 50,000.00	$ 50,000.00	0	$ -	1.00	$50,000.00		$50,000.00	100.0%	$ -
5406	WET WELL AND VALVE VAULT PIPING	1.00	LS	$ 50,000.00	$ 50,000.00	0	$ -	1.00	$50,000.00		$50,000.00	100.0%	$ -
5407	PUMPS	1.00	LS	$ 100,000.00	$ 100,000.00	0	$ -	1.00	$100,000.00		$100,000.00	100.0%	$ -
5408	CONTROLS	1.00	LS	$ 106,012.00	$ 106,012.00	0	$ -	1.00	$106,012.00		$106,012.00		$ -
5409	FETTERVILLE	1.00	LS	$ 30,000.00	$ 30,000.00	0	$ -	1.00	$30,000.00		$30,000.00	100.0%	$ -
5410	GENERATOR PAD	1.00	LS	$ 10,000.00	$ 10,000.00	0	$ -	1.00	$10,000.00		$10,000.00	100.0%	$ -
5411	GENERATOR	1.00	LS	$ 47,039.00	$ 47,039.00	0	$ -	1.00	$47,039.00		$47,039.00		$ -
5412	ELECTRIC	1.00	LS	$ 146,919.00	$ 146,919.00	0	$ -	1.00	$146,919.00		$146,919.00	100.0%	$ -
5413	ELECTRIC CONDUIT	1,335.00	LF	$ 41.00	$ 54,735.00	0	$ -	1335.00	$54,735.00		$54,735.00		$ -
5414	ELECTRIC VAULT	2.00	EA	$ 2,457.00	$ 4,914.00	0	$ -						$ 4,914.00
5415	START UP	1.00	LS	$ 4,950.00	$ 4,950.00	0	$ -	1.00	$4,950.00		$4,950.00	100.0%	$ -
5416	PAVING	1.00	LS	$ 16,822.00	$ 16,822.00	0.25	$ 4,205.50	1.00	$16,822.00		$16,822.00	100.0%	$ -
5417	RESTORATION	1.00	LS	$ 54,970.00	$ 54,970.00	0	$ -	1.00	$54,970.00		$54,970.00	100.0%	$ -
5418	FENCE	1.00	LS	$ 16,400.00	$ 16,400.00	1.00	$ 16,400.00	1.00	$16,400.00		$16,400.00	100.0%	$ -
CO 004	CHANGE ORDER 004 REMOVE B&O TAXES	1.00	LS	$ (75,000.00)	$ (75,000.00)	0	$ -						$ (75,000.00)
CO 005	CHANGE ORDER 005 OPEN CUT CASING	1.00	LS	$ (26,160.87)	$ (26,160.87)	0	$ -	1.00	($26,160.87)		($26,160.87)		$ -
CO 006	CHANGE ORDER 006	1.00	LS	$ 62,514.40	$ 62,514.40	0	$ -	1.00	$62,514.40		$62,514.40		$ -
					$ 6,978,057.02		**$ 28,855.50**		**$ 6,980,531.72**	**$ -**	**$ 6,980,531.72**		**$ (2,474.70)**

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CHARLES TOWN UTILITY BOARD
ROUTE 9 SEWER PROJECT

RESOLUTION NO. 12

RESOLUTION OF THE CITY OF CHARLES TOWN UTILITY BOARD APPROVING INVOICES RELATING TO THE CONSTRUCTION AND OTHER SERVICES FOR THE ROUTE 9 SEWER PROJECT AND AUTHORIZING PAYMENT THEREOF,

WHEREAS, the City of Charles Town Utility Board has reviewed the invoices attached hereto and incorporated herein by reference relation to the project funded by ROXUL USA, Inc., dba ROCKWOOL under an Alternate Mainline Extension Agreement (WV PSC Case No. 191025-S-PC, approved November 22, 2019) and the Escrow Agreement dated October 11, 2019.

a) That none of the items for which payment is proposed to be made has formed the basis for any disbursement theretofore made.

b) That each item for which the payment is proposed to be paid is or was necessary in connection with the Project and constitutes a cost of the project.

c) That each of such costs has been otherwise properly incurred.

d) That the payment for each of the items proposed is due and owing.

NOW, THEREFORE, BE IT RESOLVED the City of Charles Town Utility Board that the payment of the attached Contractor's Application for Payment No. 12, HATCH Invoice No. 90772505 and the CTUB Reimbursement per the attached Schedule B (See Column - Resolution No. 12) as summarized below, is hereby authorized and directed.

Vendor	Route 9 Sewer Project
Snyder Environmental Services, Inc.	$149,306.93
HATCH	$20,311.75
CTUB Reimbursement	$10,122.25
Total	**$179,740.93**

ADOPTED BY the City of Charles Town Utility Board, at the meeting held on the 24th day of February 2021.

By: _____
Daryl Hennessy, Chairman

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

Contractor's Application for Payment No. 12

Application Period: 1-1-2021 TO 1-29-2021		1/29/2021
To (Owner): **Charles Town Utility Board**	From (Contractor): **Snyder Environmental Services**	Via (Engineer): **Hatch Associates Consultants, Inc.**
Project: **Route 9 Sewer Project Ranson, WV**	Contract:	
Owner's Contract No.:	Contractor's Project No.: 20018	Engineer's Project No.: **H-359787**

Application For Payment

Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
01		$1,162,000.00
02		$1,177,551.00
03	$902,406.49	
04		$75,000.00
05		$26,160.87
6	$62,514.40	
9	$2,474.70	
TOTALS	$967,395.59	$2,440,711.87
NET CHANGE BY CHANGE ORDERS	**-$1,473,316.28**	

1. ORIGINAL CONTRACT PRICE	$	**$8,453,848.00**
2. Net change by Change Orders	$	**-$1,473,316.28**
3. Current Contract Price (Line 1 ± 2)	$	**$6,980,531.72**
4. TOTAL COMPLETED AND STORED TO DATE	$	**$6,980,531.72**
5. RETAINAGE:		
a. X $3,490,265.86 **Work Completed**	$	**$54,000.00**
b. 5% X _____ **Stored Material**	$	
c. Total Retainage (Line 5.a + Line 5.b)	$	**$54,000.00**
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c)	$	**$6,926,531.72**
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)	$	**$6,777,224.79**
8. AMOUNT DUE THIS APPLICATION	$	**$149,306.93**
9. BALANCE TO FINISH, PLUS RETAINAGE (Column G total on Progress Estimates + Line 5.c above)	$	**$54,000.00**

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By: Brandon [signature] Date: 2/22/2021

Payment of: $ 149,306.93
(Line 8 or other - attach explanation of the other amount)

is recommended by: [signature] (Engineer) 2/22/2021 (Date)

Payment of: $ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ (Owner) _____ (Date)

Approved by: _____ Funding or Financing Entity (if applicable) _____ (Date)

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Progress Estimate - Unit Price Work **Contractor's Application**

For (Contract):	Route 9 Sewer Project Ranson, WV	Application Number:	11
Application Period:	11/26/2020 to 12/30/2020	Application Date:	12/31/2020
Engineer's Project Number: H-359787			

A					B	C		D		E	F		G
Bid Item Code	Description	Item Quantity	Units	Unit Price	Scheduled Value ($)	Work Completed: Quantity Installed this Period	Work Completed: Value of Work Installed This Period	Work Completed: Quantity Installed to Date	Work Completed: Value of Work Installed to Date	Materials PresentlyStored (not in C or D)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)
100	**MOBILIZATION**												
101	MOBILIZE EQUIPMENT	1.00	LS	$ 300,000.00	$ 300,000.00	0	$ -	1.00	$300,000.00		$300,000.00	100.0%	$ -
102	BLASTING STAKEOUT	1.00	LS	$ 75,000.00	$ 75,000.00	0	$ -	1.00	$75,000.00		$75,000.00	100.0%	$ -
103	CONSTRUCTION STAKEOUT	1.00	LS	$ 75,000.00	$ 75,000.00	0	$ -	1.00	$75,000.00		$75,000.00	100.0%	$ -
104	VIDEO DOCUMENTATION	1.00	LS	$ 25,000.00	$ 25,000.00	0	$ -	1.00	$25,000.00		$25,000.00	100.0%	$ -
105	SUBMITTALS	1.00	LS	$ 25,000.00	$ 25,000.00	0	$ -	1.00	$25,000.00		$25,000.00	100.0%	$ -
106	BONDS & INSURANCE	1.00	LS	$ 100,000.00	$ 100,000.00	0	$ -	1.00	$100,000.00		$100,000.00	100.0%	$ -
200	TRAFFIC CONTROL	1.00	LS	$ 27,700.00	$ 27,700.00	0	$ -	1.00	$27,700.00		$27,700.00	100.0%	$ -
300	EROSION AND SEDIMENT CONTROL	1.00	LS	$ 60,000.00	$ 60,000.00	0	$ -	1.00	$60,000.00		$60,000.00	100.0%	$ -
400	GRAVITY SEWER 6" & 8", OPEN CUT	1,085.00	LF	$ 107.00	$ 116,095.00	0	$ -	1101.00	$117,807.00		$117,807.00	101.5%	$ (1,712.00)
500	GRAVITY SEWER 10", OPEN CUT	1,014.00	LF	$ 101.00	$ 102,414.00	0	$ -	1025.00	$103,525.00		$103,525.00	101.1%	$ (1,111.00)
600	GRAVITY SEWER 12", OPEN CUT	3,567.00	LF	$ 119.00	$ 424,473.00	0	$ -	3588.00	$426,972.00		$426,972.00	100.6%	$ (2,499.00)
700	GRAVITY SEWER 15", OPEN CUT	3,776.00	LF	$ 130.00	$ 490,880.00	0	$ -	3776.00	$490,880.00		$490,880.00	100.0%	$ -
800	FORCE-MAIN (6"-4") OPEN CUT	4,149.00	LF	$ 121.00	$ 502,029.00	0	$ -	4122.00	$498,762.00		$498,762.00	99.3%	$ 3,267.00
900	FORCE-MAIN (6"-4") IN EX. RT. 9 CASING	265.00	LF	$ 252.00	$ 66,780.00	0	$ -	265.00	$66,780.00		$66,780.00	100.0%	$ -
1000	FORCE-MAIN (6"-4") AIR VAULT & INTERNALS	6.00	EA	$ 8,370.00	$ 50,220.00	0	$ -	8.00	$66,960.00		$66,960.00	133.3%	$ (16,740.00)
1300	FORCE-MAIN (8"-6"-8") OPEN CUT	11,646.00	LF	$ 93.00	$ 1,083,078.00	0	$ -	11675.00	$1,085,775.00		$1,085,775.00	100.2%	$ (2,697.00)
1400	FORCE-MAIN (8"-6"-8") AIR VAULT & INTERNALS	21.00	EA	$ 8,370.00	$ 175,770.00	0	$ -	21.00	$175,770.00		$175,770.00	100.0%	$ -
1700	FORCE-MAIN MISC. DIP FITTINGS, IF DIRECTED	2,000.00	LBS	$ 7.00	$ 14,000.00	0	$ -						$ 14,000.00
1800	CONCRETE CLASS B, IF DIRECTED	100.00	CY	$ 435.00	$ 43,500.00	0	$ -						$ 43,500.00
1900	CASING 24" BORED, W/ 10" GRAVITY SEWER	62.00	LF	$ 540.00	$ 33,480.00	0	$ -	65.00	$35,100.00		$35,100.00	104.8%	$ (1,620.00)
2000	CASING 24" BORED, W/ 12" GRAVITY SEWER	94.00	LF	$ 532.00	$ 50,008.00	0	$ -	94.00	$50,008.00		$50,008.00	100.0%	$ -
2100	CASING 24" BORED, W/ 6"-4"-6" FORCE-MAINS	130.00	LF	$ 596.00	$ 77,480.00	0	$ -	110.00	$65,560.00		$65,560.00	84.6%	$ 11,920.00
2200	CASING 30" BORED, W/ 15" GRAVITY SEWER	162.00	LF	$ 779.00	$ 126,198.00	0	$ -	166.00	$129,314.00		$129,314.00	102.5%	$ (3,116.00)
2300	CASING 36" BORED, W/ 8"-6"-8" FORCE-MAINS	141.00	LF	$ 692.00	$ 97,572.00	0	$ -	205.00	$141,860.00		$141,860.00	145.4%	$ (44,288.00)
2600	MANHOLE, 4'-DIA. (UP TO 6' DEEP)	44.00	EA	$ 7,630.00	$ 335,720.00	0	$ -	44.00	$335,720.00		$335,720.00	100.0%	$ -
2700	MANHOLE BV-03 (DOGHOUSE), 4'-DIA. (UP TO 6' DEEP)	1.00	EA	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$ -
2800	MANHOLE DC-02 (DOGHOUSE), 4'-DIA. (UP TO 6' DEEP)	1.00	EA	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$ -
2900	MANHOLE EXTENSION, 4'-DIA.	130.00	VF	$ 167.00	$ 21,710.00	0	$ -	127.10	$21,225.70		$21,225.70	97.8%	$ 484.30
3000	MANHOLE DROP CONNECTION, TYPE A	1.00	EA	$ 3,550.00	$ 3,550.00	0	$ -	1.00	$3,550.00		$3,550.00	100.0%	$ -
3100	MANHOLE DROP CONNECTION, TYPE B	5.00	EA	$ 5,000.00	$ 25,000.00	0	$ -	5.00	$25,000.00		$25,000.00	100.0%	$ -
3200	MANHOLE BV-22, FOR TRANSITION	1.00	EA	$ 13,500.00	$ 13,500.00	0	$ -	1.00	$13,500.00		$13,500.00	100.0%	$ -
3300	MANHOLE CH-20, FOR TRANSITION	1.00	EA	$ 13,500.00	$ 13,500.00	0	$ -	1.00	$13,500.00		$13,500.00	100.0%	$ -
3400	SEWER MARKER	98.00	EA	$ 105.00	$ 10,290.00	0	$ -	54.00	$5,670.00		$5,670.00	55.1%	$ 4,620.00
3500	CONNECTION TO EX. FACILITIES, AT MANHOLE 11V	1.00	LS	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$ -
3600	CONNECTION TO EX. FACILITIES, AT MANHOLE BV-03	1.00	LS	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$ -
3700	CONNECTION TO EX. FACILITIES, AT MANHOLE DC-02	1.00	LS	$ 7,500.00	$ 7,500.00	0	$ -	1.00	$7,500.00		$7,500.00	100.0%	$ -
3800	**PUMP STATION, WAR ADMIRAL**					0	$ -						$ -
3801	MOBILIZATION	1.00	LS	$ 21,700.00	$ 21,700.00	0	$ -	1.00	$21,700.00		$21,700.00	100.0%	$ -
3802	EXCAVATION	1.00	LS	$ 120,000.00	$ 120,000.00	0	$ -	1.00	$120,000.00		$120,000.00	100.0%	$ -
3803	SET WET WELL	1.00	LS	$ 50,000.00	$ 50,000.00	0	$ -	1.00	$50,000.00		$50,000.00	100.0%	$ -
3804	VALVE VAULT	1.00	LS	$ 75,000.00	$ 75,000.00	0	$ -	1.00	$75,000.00		$75,000.00	100.0%	$ -
3805	BACKFILL	1.00	LS	$ 25,000.00	$ 25,000.00	0	$ -	1.00	$25,000.00		$25,000.00	100.0%	$ -
3806	WET WELL AND VALVE VAULT PIPING	1.00	LS	$ 66,000.00	$ 66,000.00	0	$ -	1.00	$66,000.00		$66,000.00	100.0%	$ -
3807	AIR INJECTION VAULT & EQUIPMENT	1.00	LS	$ 54,675.00	$ 54,675.00	0	$ -	1.00	$54,675.00		$54,675.00	100.0%	$ -
3808	PUMPS	1.00	LS	$ 195,000.00	$ 195,000.00	0	$ -	1.00	$195,000.00		$195,000.00	100.0%	$ -
3809	CONTROLS	1.00	LS	$ 110,000.00	$ 110,000.00	0	$ -	1.00	$110,000.00		$110,000.00		$ -
3810	FETTERVILLE BUILDING	1.00	LS	$ 53,100.00	$ 53,100.00	0	$ -	1.00	$53,100.00		$53,100.00	100.0%	$ 0.00
3811	GENERATOR PAD	1.00	LS	$ 10,000.00	$ 10,000.00	0	$ -	1.00	$10,000.00		$10,000.00	100.0%	$ -
3812	GENERATOR	1.00	LS	$ 67,500.00	$ 67,500.00	0	$ -	1.00	$67,500.00		$67,500.00	100.0%	$ -
3813	ELECTRIC	1.00	LS	$ 167,500.00	$ 167,500.00	0	$ -	1.00	$167,500.00		$167,500.00	100.0%	$ -
3814	START UP	1.00	LS	$ 20,000.00	$ 20,000.00	0	$ -	1.00	$20,000.00		$20,000.00	100.0%	$ -

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Progress Estimate - Unit Price Work **Contractor's Application**

For (Contract):	Route 9 Sewer Project Ranson, WV	Application Number:	11
Application Period:	11/26/2020 to 12/30/2020	Application Date:	12/31/2020
Engineer's Project Number:	H-359787		

A					B	C		D		E	F		G
Bid Item Code	Description	Item Quantity	Units	Unit Price	Scheduled Value ($)	Work Completed: Quantity Installed this Period	Work Completed: Value of Work Installed This Period	Work Completed: Quantity Installed to Date	Work Completed: Value of Work Installed to Date	Materials PresentlyStored (not in C or D)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)
3815	PAVING	1.00	LS	$ 33,000.00	$ 33,000.00	0.25	$ 8,250.00	1.00	$33,000.00		$33,000.00	100.0%	$ -
3816	RESTORATION	1.00	LS	$ 22,590.00	$ 22,590.00	0	$ -	1.00	$22,590.00		$22,590.00	100.0%	$ -
3817	FENCE	1.00	LS	$ 15,000.00	$ 15,000.00	0	$ -	1.00	$15,000.00		$15,000.00	100.0%	$ -
4000	RESTORATION, STATE (WVDOH) ROAD	290.00	SY	$ 76.00	$ 22,040.00	0	$ -	70.50	$5,358.00		$5,358.00	24.3%	$ 16,682.00
4100	RESTORATION, ASPHALT DRIVEWAY	320.00	SY	$ 62.00	$ 19,840.00	0	$ -	328.00	$20,336.00		$20,336.00	102.5%	$ (496.00)
4200	RESTORATION, ASPHALT BIKE PATH	140.00	SY	$ 315.00	$ 44,100.00	0	$ -	140.00	$44,100.00		$44,100.00	100.0%	$ -
4300	RESTORATION, GRAVEL ROAD OR DRIVE	2,170.00	SY	$ 15.00	$ 32,550.00	0	$ -	2170.00	$32,550.00		$32,550.00	100.0%	$ -
4400	RESTORATION, UNIMPROVED (GRASS) SURFACE	80,460.00	SY	$ 3.00	$ 241,380.00	0	$ -	74946.00	$224,838.00		$224,838.00	93.1%	$ 16,542.00
4500	CULVERT 12" TO 30", OPEN CUT	60.00	LF	$ 150.00	$ 9,000.00	0	$ -	60.00	$9,000.00		$9,000.00	100.0%	$ -
4600	ABANDONMENT OF WATER WELL	1.00	LS	$ 3,000.00	$ 3,000.00	0	$ -	2.00	$6,000.00		$6,000.00	200.0%	$ (3,000.00)
4700	EXCAVATION AND BACKFILLING BELOW SUBGRADE	500.00	CY	$ 45.00	$ 22,500.00	0	$ -						$ 22,500.00
4800	ALLOWANCE - SINKHOLE REPAIR, SOIL FOR CAP	25.00	CY	$ 30.00	$ 750.00	0	$ -						$ 750.00
4900	ALLOWANCE - SINKHOLE REPAIR, CLASS 10 AGGREGATE	25.00	CY	$ 50.00	$ 1,250.00	0	$ -						$ 1,250.00
5000	ALLOWANCE - SINKHOLE REPAIR, CLASS 1 AGGREGATE BAS	25.00	CY	$ 50.00	$ 1,250.00	0	$ -						$ 1,250.00
5100	ALLOWANCE - SINKHOLE REPAIR, SPECIAL ROCK FILL	25.00	CY	$ 50.00	$ 1,250.00	0	$ -						$ 1,250.00
5200	ALLOWANCE - SINKHOLE REPAIR, RIP-RAP	25.00	CY	$ 75.00	$ 1,875.00	0	$ -						$ 1,875.00
5300	ALLOWANCE - SINKHOLE REPAIR, IMPERVIOUS CORE	500.00	SF	$ 10.00	$ 5,000.00	0	$ -						$ 5,000.00
5400	**PUMP STATION, NORTHPORT**					0	$ -						$ -
5401	MOBILIZATION	1.00	LS	$ 20,022.00	$ 20,022.00	0	$ -	1.00	$20,022.00		$20,022.00	100.0%	$ -
5402	EXCAVATION	1.00	LS	$ 100,000.00	$ 100,000.00	0	$ -	1.00	$100,000.00		$100,000.00	100.0%	$ -
5403	SET WET WELL	1.00	LS	$ 30,223.49	$ 30,223.49	0	$ -	1.00	$30,223.49		$30,223.49	100.0%	$ -
5404	VALVE VAULT	1.00	LS	$ 59,400.00	$ 59,400.00	0	$ -	1.00	$59,400.00		$59,400.00	100.0%	$ -
5405	BACKFILL	1.00	LS	$ 50,000.00	$ 50,000.00	0	$ -	1.00	$50,000.00		$50,000.00	100.0%	$ -
5406	WET WELL AND VALVE VAULT PIPING	1.00	LS	$ 50,000.00	$ 50,000.00	0	$ -	1.00	$50,000.00		$50,000.00	100.0%	$ -
5407	PUMPS	1.00	LS	$ 100,000.00	$ 100,000.00	0	$ -	1.00	$100,000.00		$100,000.00	100.0%	$ -
5408	CONTROLS	1.00	LS	$ 106,012.00	$ 106,012.00	0	$ -	1.00	$106,012.00		$106,012.00		$ -
5409	FETTERVILLE	1.00	LS	$ 30,000.00	$ 30,000.00	0	$ -	1.00	$30,000.00		$30,000.00	100.0%	$ -
5410	GENERATOR PAD	1.00	LS	$ 10,000.00	$ 10,000.00	0	$ -	1.00	$10,000.00		$10,000.00	100.0%	$ -
5411	GENERATOR	1.00	LS	$ 47,039.00	$ 47,039.00	0	$ -	1.00	$47,039.00		$47,039.00		$ -
5412	ELECTRIC	1.00	LS	$ 146,919.00	$ 146,919.00	0	$ -	1.00	$146,919.00		$146,919.00	100.0%	$ -
5413	ELECTRIC CONDUIT	1,335.00	LF	$ 41.00	$ 54,735.00	0	$ -	1335.00	$54,735.00		$54,735.00		$ -
5414	ELECTRIC VAULT	2.00	EA	$ 2,457.00	$ 4,914.00	0	$ -						$ 4,914.00
5415	START UP	1.00	LS	$ 4,950.00	$ 4,950.00	0	$ -	1.00	$4,950.00		$4,950.00	100.0%	$ -
5416	PAVING	1.00	LS	$ 16,822.00	$ 16,822.00	0.25	$ 4,205.50	1.00	$16,822.00		$16,822.00	100.0%	$ -
5417	RESTORATION	1.00	LS	$ 54,970.00	$ 54,970.00	0	$ -	1.00	$54,970.00		$54,970.00	100.0%	$ -
5418	FENCE	1.00	LS	$ 16,400.00	$ 16,400.00	1.00	$ 16,400.00	1.00	$16,400.00		$16,400.00	100.0%	$ -
CO 004	CHANGE ORDER 004 REMOVE B&O TAXES	1.00	LS	$ (75,000.00)	$ (75,000.00)	0	$ -						$ (75,000.00)
CO 005	CHANGE ORDER 005 OPEN CUT CASING	1.00	LS	$ (26,160.87)	$ (26,160.87)	0	$ -	1.00	($26,160.87)		($26,160.87)		$ -
CO 006	CHANGE ORDER 006	1.00	LS	$ 62,514.40	$ 62,514.40	0	$ -	1.00	$62,514.40		$62,514.40		$ -
CO 009	CHANGE ORDER 009 QUANTITIES ADJUSTMENT	1.00	LS	$ 2,474.70	$ 2,474.70	0	$ -						$ 2,474.70
					$ 6,980,531.72		**$ 28,855.50**		**$ 6,980,531.72**	**$ -**	**$ 6,980,531.72**		**$ 0.00**

EJCDC® C-620 Contractor's Application for Payment
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Stored Material Summary **Contractor's Application**

For (Contract):	Route 9 Sewer Project Ranson, WV	Application Number:	12
Application Period:	11/26/2020 to 12/30/2020		12/31/2020

A		B	C		D		E				F		G
					Stored Previously								
Bid Item No.	Supplier Invoice No.		Storage Location	Description of Materials or Equipment Stored	Date Placed into Storage (Month/Year)	Amount ($)	Amount Stored this Month ($)	Stored Units		Subtotal Amount Stored to Date (D + E)	Incorporated in Work	% Stored	Materials Remaining in Storage ($) (D + E - F)
100				**MOBILIZATION**						$ -			$ -
101				MOBILIZE EQUIPMENT						$ -			$ -
102				BLASTING STAKEOUT						$ -			$ -
103				CONSTRUCTION STAKEOUT						$ -			$ -
104				VIDEO DOCUMENTATION						$ -			$ -
105				SUBMITTALS						$ -			$ -
106				BONDS & INSURANCE						$ -			$ -
200				TRAFFIC CONTROL						$ -			$ -
300				EROSION AND SEDIMENT CONTROL									$ -
400				GRAVITY SEWER 6" & 8", OPEN CUT						$ -			$ -
500	3378054		on site	GRAVITY SEWER 10", OPEN CUT	3/2020	$16.00		1014.00	LF	$ 16.00	1025.00	-1%	$ -
600	3376257 3378050		on site	GRAVITY SEWER 12", OPEN CUT	3/2020	$181.00		3567.00	LF	$ 181.00	3588.00	-1%	$ -
700	3376255		on site	GRAVITY SEWER 15", OPEN CUT	3/2020	$21.00		3776.00	LF	$ 21.00	3776.00		$ -
800	3372577		on site	FORCE-MAIN (6"-4") OPEN CUT	3/2020	$24,089.00		4149.00	LF	$ 24,089.00	4122.00	1%	$ -
900				FORCE-MAIN (6"-4") IN EX. RT. 9 CASING						$ -	265.00		$ -
1000				FORCE-MAIN (6"-4") AIR VAULT & INTERNALS						$ -	8.00		$ -
1300	3375294 3375305 3375299 3373509 3373510		on site	FORCE-MAIN (8"-6"-8") OPEN CUT	3/2020	$105,363.00		11646.00	LF	$ 105,363.00	11675.00	0%	$ -
1400	3377020 3377031			FORCE-MAIN (8"-6"-8") AIR VAULT & INTERNALS	3/2020	$29.00		21.00	EA	$ 29.00	21.00		$ -
1700				FORCE-MAIN MISC. DIP FITTINGS, IF DIRECTED						$ -			$ -
1800				CONCRETE CLASS B, IF DIRECTED						$ -			$ -
1900				CASING 24" BORED, W/ 10" GRAVITY SEWER						$ -			$ -
2000				CASING 24" BORED, W/ 12" GRAVITY SEWER						$ -			$ -
2100				CASING 24" BORED, W/ 6"-4"-6" FORCE-MAINS						$ -			$ -
2200	LL223750 LL223616 13885501		on site	CASING 30" BORED, W/ 15" GRAVITY SEWER	3/2020	$21,237.82		162.00	LF	$ 21,237.82	166.00	-2%	$ -
2300	13885502		on site	CASING 36" BORED, W/ 8"-6"-8" FORCE-MAINS	3/2020	$20,250.00		141.00	LF	$ 20,250.00	205.00	-45%	$ -
2600				MANHOLE, 4'-DIA. (UP TO 6' DEEP)									$ -
2700				MANHOLE BV-03 (DOGHOUSE), 4'-DIA. (UP TO 6' DEEP)		$3.00							$ -
2800				MANHOLE DC-02 (DOGHOUSE), 4'-DIA. (UP TO 6' DEEP)									$ -
2900				MANHOLE EXTENSION, 4'-DIA.									$ -
3000				MANHOLE DROP CONNECTION, TYPE A									$ -
3100				MANHOLE DROP CONNECTION, TYPE B									$ -
3200				MANHOLE BV-22, FOR TRANSITION									$ -
3300				MANHOLE CH-20, FOR TRANSITION									$ -
3400				SEWER MARKER									$ -
3500				CONNECTION TO EX. FACILITIES, AT MANHOLE 11V									$ -
3600				CONNECTION TO EX. FACILITIES, AT MANHOLE BV-03									$ -
3700				CONNECTION TO EX. FACILITIES, AT MANHOLE DC-02									$ -
3800				**PUMP STATION, WAR ADMIRAL**									$ -
3801				MOBILIZATION									$ -

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Stored Material Summary **Contractor's Application**

For (Contract):	Route 9 Sewer Project Ranson, WV	Application Number:	12
Application Period:	11/26/2020 to 12/30/2020		12/31/2020

A		B	C		D		E				F		G
					Stored Previously								
Bid Item No.	Supplier Invoice No.		Storage Location	Description of Materials or Equipment Stored	Date Placed into Storage (Month/Year)	Amount ($)	Amount Stored this Month ($)	Stored Units		Subtotal Amount Stored to Date (D + E)	Incorporated in Work	% Stored	Materials Remaining in Storage ($) (D + E - F)
3802				EXCAVATION									$ -
3803				SET WET WELL									$ -
3804				VALVE VAULT									$ -
3805				BACKFILL									$ -
3806	111544		SES Shop	WET WELL AND VALVE VAULT PIPING	Sep-20	$2,120.40	$ -	1.00	LS	$ 2,120.40	1.00		$ -
3807				AIR INJECTION VAULT & EQUIPMENT									$ -
3808				PUMPS									
3809	200416-1 200416-3		on site	CONTROLS	Sep-20	$101,426.00	$ -	1.00	LS	$ 101,426.00	1.00		$ -
3810				FETTERVILLE BUILDING									
3811				GENERATOR PAD									
3812	S1-68114		SES Shop	GENERATOR	Sep-20	$67,500.00	$ -	1.00	LS	$ 67,500.00	1.00		$ -
3813	M761044		on site	ELECTRIC	Sep-20	$8,172.13	$ -	1.00	LS	$ 8,172.13	1.00		$ -
3814				START UP									
3815				PAVING									
3816				RESTORATION									
3817				FENCE									
4000				RESTORATION, STATE (WVDOH) ROAD									
4100				RESTORATION, ASPHALT DRIVEWAY		$70.50							
4200				RESTORATION, ASPHALT BIKE PATH		$258.00							
4300				RESTORATION, GRAVEL ROAD OR DRIVE									
4400				RESTORATION, UNIMPROVED (GRASS) SURFACE									
4500				CULVERT 12" TO 30", OPEN CUT		$5,014.00							
4600				ABANDONMENT OF WATER WELL									
4700				EXCAVATION AND BACKFILLING BELOW SUBGRADE									
4800				ALLOWANCE - SINKHOLE REPAIR, SOIL FOR CAP									
4900				ALLOWANCE - SINKHOLE REPAIR, CLASS 10 AGGREGATE									
5000				ALLOWANCE - SINKHOLE REPAIR, CLASS 1 AGGREGATE BAS									
5100				ALLOWANCE - SINKHOLE REPAIR, SPECIAL ROCK FILL									
5200				ALLOWANCE - SINKHOLE REPAIR, RIP-RAP									
5300				ALLOWANCE - SINKHOLE REPAIR, IMPERVIOUS CORE									
5400				**PUMP STATION, NORTHPORT**									
5401				MOBILIZATION									
5402				EXCAVATION		$0.65							
5403				SET WET WELL									
5404				VALVE VAULT									
5405				BACKFILL									
5406				WET WELL AND VALVE VAULT PIPING									
5407				PUMPS									
5408	200416-2		on site	CONTROLS	Sep-20	$81,277.00	$ -	1.00	LS	$ 81,277.00	1.00		$ -
5409				FETTERVILLE									
5410				GENERATOR PAD									
5411	S1-68068 S1-67061		SES Shop	GENERATOR	Sep-20	$39,350.00	$ -	1.00	LS	$ 39,350.00	1.00		$ -
5412				ELECTRIC									
5413				ELECTRIC CONDUIT									
5414				ELECTRIC VAULT									
5415				START UP									
5416				PAVING									

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Stored Material Summary **Contractor's Application**

For (Contract):	Route 9 Sewer Project Ranson, WV								Application Number:	12
Application Period:	11/26/2020 to 12/30/2020									12/31/2020

A		B	C		D		E			F		G
					Stored Previously							
Bid Item No.	Supplier Invoice No.		Storage Location	Description of Materials or Equipment Stored	Date Placed into Storage (Month/Year)	Amount ($)	Amount Stored this Month ($)	Stored Units		Subtotal Amount Stored to Date (D + E)	Incorporated in Work	% Stored	Materials Remaining in Storage ($) (D + E - F)
5417				RESTORATION									
5418				FENCE									
						$476,378.50	**$ -**			**$ 471,032.35**			**$ -**

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1600 West Carson St, Suite 1
Pittsburgh, PA 15219
Phone: (412) 497-2000

INVOICE

Charles Town Utility Board
661 South George St., Ste. 101
Charles Town, WV 25414
Attn: Kristen Stolipher

Date:	2/18/2021
Invoice No:	90772505
Period Ending:	2/5/2021
Currency:	US Dollar (USD)
Reference:	TASK ORDER 4
Terms of Payment:	Net 30 Days
Customer Number:	113985

re: H-359787 On-Call Engineering Services
Project Manager: Richard Travers

TO#4 Route 9 Sewer Project, Bid and Construction Services Progress Report – coordinated with SES on the O&M Manuals - pictures and documentation; punch list items' status discussed; weekly phone calls with SES, CTUB and SE to discuss Ranson permitting outstanding issues; prepared a task order amendment for the "Spring" punch list activities; reviewed and processed SES pay application with SE; coordinated 30-day Acceptance Test with Team; SE performed daily coordination with SES on punch list progress.

Travers, Richard	33.50	$	215.00	$	7,202.50
Adamowicz, Elizabeth	3.00	$	234.00	$	702.00
Yearley, Scott	1.50	$	120.00	$	180.00
Total Labor				**$**	**8,084.50**

Vendor	**INVOICE #**		**AMOUNT**
Specialized Engineering	49156	$	11,645.00
Total Expenses		**$**	**11,645.00**

Administration	**BASE**	**RATE**		**AMOUNT**
Total Administration	$ 11,645.00	5%	**$**	**582.25**

Task Order Budget	**$**	**710,683.00**
Task Order Previously Billed	**$**	**690,357.90**
Total Invoice	**$**	**20,311.75**
Task Order Remaining	**$**	**13.35**

SPECIALIZED ENGINEERING
Engineers • Geologists • Inspectors
Employee Owned, Client Driven
4845 International Blvd
Suite 104
Frederick, Maryland 21703

Invoice

DATE	INVOICE NO.
02/15/2021	49156

BILL TO
Luke Fischer Hatch 704 Quince Orchard Road Suite 310 Gaithersburg, MD 20878

TERMS	PROJECT	Client's Number
NET 30	197873 - Route 9 Sewer Infrastructure	Route 9 Sewer Infrastructure

DATE	QTY	DESCRIPTION	RATE	AMOUNT
		Management		
12/28/2020	4.00	Construction Manager	130.00	520.00
12/29/2020	4.00	Construction Manager	130.00	520.00
12/30/2020	4.00	Construction Manager	130.00	520.00
12/31/2020	4.00	Construction Manager	130.00	520.00
1/4/2021	3.00	Construction Manager	130.00	390.00
1/5/2021	3.00	Construction Manager	130.00	390.00
1/6/2021	3.00	Construction Manager	130.00	390.00
1/7/2021	2.00	Construction Manager	130.00	260.00
1/8/2021	2.00	Construction Manager	130.00	260.00
1/11/2021	2.00	Construction Manager	130.00	260.00
1/12/2021	2.00	Construction Manager	130.00	260.00
1/13/2021	2.00	Construction Manager	130.00	260.00
1/14/2021	2.00	Construction Manager	130.00	260.00
1/15/2021	2.00	Construction Manager	130.00	260.00
1/18/2021	1.00	Construction Manager	130.00	130.00
1/19/2021	1.00	Construction Manager	130.00	130.00
1/20/2021	2.00	Construction Manager	130.00	260.00
1/21/2021	2.00	Construction Manager	130.00	260.00
1/22/2021	1.00	Construction Manager	130.00	130.00
1/27/2021	1.00	Construction Manager	130.00	130.00
2/3/2021	1.00	Construction Manager	130.00	130.00
		Inspector I		
12/28/2020	6.00	Senior Inspector	115.00	690.00
12/29/2020	6.00	Senior Inspector	115.00	690.00
12/30/2020	6.00	Senior Inspector	115.00	690.00
12/31/2020	6.00	Senior Inspector	115.00	690.00
1/4/2021	4.00	Senior Inspector	115.00	460.00
1/5/2021	4.00	Senior Inspector	115.00	460.00
1/6/2021	2.00	Senior Inspector	115.00	230.00
1/7/2021	2.00	Senior Inspector	115.00	230.00

Project	197873	Route 9 Sewer Infrastructure	Invoice	49156
1/8/2021	4.00	Senior Inspector	115.00	460.00
1/11/2021	1.00	Senior Inspector	115.00	115.00
1/13/2021	1.00	Senior Inspector	115.00	115.00
1/19/2021	1.00	Senior Inspector	115.00	115.00
1/20/2021	1.00	Senior Inspector	115.00	115.00
1/21/2021	1.00	Senior Inspector	115.00	115.00
1/27/2021	1.00	Senior Inspector	115.00	115.00
2/3/2021	1.00	Senior Inspector	115.00	115.00

All Claims and discrepancies must be reported within 30 days of the date of the invoice

Total this Invoice $11,645.00

Charles Town Utility Board
Route 9 Sewer Infrastructure Project
Alternate Mainline Extension Agreement (AMEA) / Escrow Agreement

				Resolution No. C	Resolution No. 1	Resolution No. 2	Resolution No. 3	Resolution No. 4	Resolution No. 5	Resolution No. 6	Resolution No. 7	Resolution No. 8	Resolution No. 9	Resolution No. 10	Resolution No. 11	Resolution No. 12		ESCROW DEPOSIT FOR CONSTRUCTION			Resolution No. 13
$10,500,000 Rockwool Escrow Agreement/(AMEA) Reimbursement Schedule B, October, 2019	REVISED BUDGET	Draw (a.) Ranson Reimbursement	Draw (b.) CTUB Reimbursement	Draw (c.) CTUB Reimbursement 10/1/19-present	Contractor's Application for Payment No. 001	Contractor's Application for Payment No. 002, Hatch Inv. 90736637, CTUB Reimbursement	Contractor's Application for Payment No. 003, Hatch Inv. No. 90739805 & 90742814, CTUB Reimbursement	Contractor's Application for Payment No. 04, Hatch Inv. No. 90746225	Contractor's Application for Payment No. 05, CTUB Reimbursement	Contractor's Application for Payment No. 06, Hatch Inv. 90752351, CTUB Reimbursement	Contractor's Application for Payment No. 07, Hatch Inv. 90755283, CTUB Reimbursement	Contractor's Application for Payment No. 08, Hatch Inv. 90758960, CTUB Reimbursement	Contractor's Application for Payment No. 09, Hatch Inv. 90762081, CTUB Reimbursement	Contractor's Application for Payment No. 10, CTUB Reimbursement	Contractor's Application for Payment No. 11, Hatch Inv. 90768116, CTUB Reimbursement	Contractor's Application for Payment No. 12, Hatch Inv. 90772505, CTUB Reimbursement	Estimated Future Costs to Complete Project	BALANCE REMAINING	Adjustments to Close out Contingency	POST PROJECT BALANCE REMAINING	Final Payment to Rockwool
1 **CONSTRUCTION**																					
a. Contract 1	6,978,057.02	0.00	0.00	0.00	90,000.00	1,236,605.34	1,894,374.89	1,114,717.05	480,775.05	180,516.31	258,917.35	402,969.65	449,810.33	490,122.39	178,416.43	149,306.93	54,000.00	-2,474.70	2,474.70	0.00	0.00
b. Contingency 3.18%	603,350.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72,008.45	42,992.55	62,919.75	58,685.95	55,762.50	4,028.50	2,097.50	10,122.25	28,000.00	266,733.53	-44,561.23	222,172.30	222,172.30
c. CSX Fees	15,300.00	0.00	16,050.00	5,000.00	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	-5,750.00	5,750.00	0.00	0.00
d. N-S Fees	41,600.00	0.00	21,300.00	0.00	0.00	0.00	0.00	0.00	9,789.21	1,640.50	2,957.50	2,769.75	1,640.75	0.00	0.00	0.00	0.00	1,502.29	-1,502.29	0.00	0.00
e. DOH Bond and Inspection Fees	119,937.00	0.00	19,550.00	0.00	0.00	84,973.05	1,288.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14,125.68	-14,125.68	0.00	0.00
2 **ENGINEERING SERVICES**																					
Task Orders 1 - 8	1,851,567.87	1,084,987.66	102,994.82	10,289.25	0.00	38,068.37	210,109.15	93,693.87	61,197.50	42,247.25	56,752.25	41,275.75	58,388.63	0.00	71,215.63	20,311.75	15,600.00	-55,564.01	55,564.01	0.00	0.00
Task Orders Charles Town	56,820.00	0.00	56,820.00	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	0.00	0.00	0.00	0.00
3 **LEGAL SERVICES**																					
a Local Project Attorney (PSC)	100,000.00	0.00	65,836.78	25,573.71	0.00	0.00	2,730.00	0.00	260.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,000.00	3,599.51	-3,599.51	0.00	0.00
b Permitting / Ord Attorney	215,000.00	0.00	199,514.04	0.00	0.00	0.00	15,485.96	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
c RA Attorney Stranko / Luttrell	12,959.40	12,959.40	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	0.00	0.00	0.00	0.00
4 **ADMINISTRATIVE SERVICES**																					
b (CPA)	16,723.00	0.00	16,723.00	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	0.00	0.00	0.00	0.00
c Other Administrative Costs	2,750.00	0.00	2,750.00	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	0.00	0.00	0.00	0.00
5 **LAND COSTS**																					
b Easements	324,611.85	0.00	324,611.85	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	0.00	0.00	0.00
SOFT COST CONTINGENCY	74,667.36	0.00	0.00	0.00	0.00	0.00	74,667.36	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
Interest on Line of Credit	59,887.52	59,887.52	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	0.00	0.00	0.00	0.00
Amount Owed Line of Credit		1,157,834.58																			
Charles Town's Cost Incurred			826,150.49																		
9 Sub Total Lines 1-8	**10,473,232.00**	**1,157,834.58**	**826,150.49**	**40,862.96**	**90,000.00**	**1,359,646.76**	**2,198,655.63**	**1,208,410.92**	**624,030.21**	**267,396.61**	**381,546.85**	**505,701.10**	**565,602.21**	**494,150.89**	**251,729.56**	**179,740.93**	**99,600.00**	**222,172.30**	**0.00**	**222,172.30**	**222,172.30**
ESCROW DEPOSIT UPON AMLEA SUBMITTAL TO WV PSC (Ranson and Charles Town Costs Incurred)																					
ESCROW DEPOSIT FOR CONSTRUCTION																		**222,172.30**		**222,172.30**	**0.00**

*The construction contingency line item has been reduced by $26,768 to reflect the installation of 120 linear feet of 16" steel casing for a sanitary sewer crossing that was funded by Rockwool during the water line project.

CHANGE ORDER

Change Order No. **10**

Date of Issuance:	**February 19, 2021**	Effective Date:	**February 24, 2021**
Owner:	**Charles Town Utility Board**	Owner's Contract No.:	
Contractor:	**Snyder Environmental Services, Inc.**	Contractor's Project No.:	
Engineer:	**Hatch Associates Consultants, Inc.**	Engineer's Project No.:	**H-359787**
Project:	**Route 9 Sewer Project**	Contract Name:	**Route 9 Sewer Project**

The Contract is modified as follows upon execution of this Change Order: **Contract Time extension of 66 days to complete the outstanding Punch List items. The Ready for Final Payment date changes from February 24, 2021 to May 1, 2021.**

CHANGE IN CONTRACT PRICE	**CHANGE IN CONTRACT TIMES** *[note changes in Milestones if applicable]*
Original Contract Price: **$ 8,453,848.00**	Original Contract Times: Substantial Completion: **210 days** Ready for Final Payment: **270 days**
~~[Increase]~~ [Decrease] from previously approved Change Orders No. 1 to No. 9: **$ <1,473,316.78>**	[Increase] [~~Decrease~~] from previously approved Change Orders No. 1 to No. 9: Substantial Completion: **54 days** Ready for Final Payment: **80 days**
Contract Price prior to this Change Order: **$ 6,980,531.72**	Contract Times prior to this Change Order: Substantial Completion: **264 days** Ready for Final Payment: **350 days**
[Increase] ~~[Decrease]~~ of this Change Order: **$ 0.00**	[Increase] ~~[Decrease]~~ of this Change Order: Substantial Completion: **0 days** Ready for Final Payment: **66 days**
Contract Price incorporating this Change Order: **$ 6,980,531.72**	Contract Times with all approved Change Orders: Substantial Completion: **264 days (November 30, 2020)** Ready for Final Payment: **416 days (May 1, 2021)**

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By:	By:	By: Brandon L
Engineer (if required)	Owner (Authorized Signature)	Contractor (Authorized Signature)
Title: Sr. Project Manager	Title:	Title: VICE PRESIDENT
Date: 2/19/2021	Date:	Date: 2/19/2021

CHARLES TOWN UTILITY BOARD
ROUTE 9 SEWER PROJECT

RESOLUTION NO. 13

RESOLUTION OF THE CITY OF CHARLES TOWN UTILITY BOARD APPROVING REIMBURSEMENT FROM THE ROUTE 9 ESCROW ACCOUNT RELATING TO THE CONSTRUCTION AND OTHER SERVICES FOR THE ROUTE 9 SEWER PROJECT AND AUTHORIZING PAYMENT THEREOF,

WHEREAS, the City of Charles Town Utility Board has paid all invoices with the exception of the estimated future costs in accordance and incorporated herein by reference relation to the project funded by ROXUL USA, Inc., dba ROCKWOOL under an Alternate Mainline Extension Agreement (WV PSC Case No. 191025-S-PC, approved November 22, 2019) and the Escrow Agreement dated October 11, 2019.

a) That none of the items for which payment is proposed to be made has formed the basis for any disbursement theretofore made.

b) That each item for which the payment is proposed to be paid is or was necessary in connection with the Project and constitutes a cost of the project.

c) That each of such costs has been otherwise properly incurred.

d) That the payment for each of the items proposed is due and owing.

NOW, THEREFORE, BE IT RESOLVED the City of Charles Town Utility Board that the payment from the Route 9 Escrow Account to Rockwool per the attached Schedule B (See Column - Resolution No. 13) as summarized below, is hereby authorized and directed.

Vendor	**Route 9 Sewer Project**
Rockwool	$222,172.30
Total	**$222,172.30**

ADOPTED BY the City of Charles Town Utility Board, at the meeting held on the 24th day of February 2021.

By: _____
Daryl Hennessy, Chairman

Charles Town Utility Board
Route 9 Sewer Infrastructure Project
Alternate Mainline Extension Agreement (AMEA) / Escrow Agreement

$10,500,000 Rockwool Escrow Agreement/(AMEA) Reimbursement Schedule B, October, 2019	REVISED BUDGET	Draw (a.) Ranson Reimbursement	Draw (b.) CTUB Reimbursement	Resolution No. C Draw (c.) CTUB Reimbursement 10/1/19-present	Resolution No. 1 Contractor's Application for Payment No. 001	Resolution No. 2 Contractor's Application for Payment No. 002, Hatch Inv. 90736637, CTUB Reimbursement	Resolution No. 3 Contractor's Application for Payment No. 003, Hatch Inv. No. 90739805 & 90742814, CTUB Reimbursement	Resolution No. 4 Contractor's Application for Payment No. 04, Hatch Inv. No. 90746225	Resolution No. 5 Contractor's Application for Payment No. 05, CTUB Reimbursement	Resolution No. 6 Contractor's Application for Payment No. 06, Hatch Inv. 90752351, CTUB Reimbursement	Resolution No. 7 Contractor's Application for Payment No. 07, Hatch Inv. 90755283, CTUB Reimbursement	Resolution No. 8 Contractor's Application for Payment No. 08, Hatch Inv. 90758960, CTUB Reimbursement	Resolution No. 9 Contractor's Application for Payment No. 09, Hatch Inv. 90762081, CTUB Reimbursement	Resolution No. 10 Contractor's Application for Payment No. 10, CTUB Reimbursement	Resolution No. 11 Contractor's Application for Payment No. 11, Hatch Inv. 90768116, CTUB Reimbursement	Resolution No. 12 Contractor's Application for Payment No. 12, Hatch Inv. 90772505, CTUB Reimbursement	Estimated Future Costs to Complete Project	ESCROW DEPOSIT FOR CONSTRUCTION BALANCE REMAINING	Adjustments to Close out Contingency	POST PROJECT BALANCE REMAINING	Resolution No. 13 Final Payment to Rockwool
1 **CONSTRUCTION**																					
a. Contract 1	6,978,057.02	0.00	0.00	0.00	90,000.00	1,236,605.34	1,894,374.89	1,114,717.05	480,775.05	180,516.31	258,917.35	402,969.65	449,810.33	490,122.39	178,416.43	149,306.93	54,000.00	-2,474.70	2,474.70	0.00	0.00
b. Contingency 3.18%	603,350.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72,008.45	42,992.55	62,919.75	58,685.95	55,762.50	4,028.50	2,097.50	10,122.25	28,000.00	266,733.53	-44,561.23	222,172.30	222,172.30
c. CSX Fees	15,300.00	0.00	16,050.00	5,000.00	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	-5,750.00	5,750.00	0.00	0.00
d. N-S Fees	41,600.00	0.00	21,300.00	0.00	0.00	0.00	0.00	0.00	9,789.21	1,640.50	2,957.50	2,769.75	1,640.75	0.00	0.00	0.00	0.00	1,502.29	-1,502.29	0.00	0.00
e. DOH Bond and Inspection Fees	119,937.00	0.00	19,550.00	0.00	0.00	84,973.05	1,288.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14,125.68	-14,125.68	0.00	0.00
2 **ENGINEERING SERVICES**																					
Task Orders 1 - 8	1,851,567.87	1,084,987.66	102,994.82	10,289.25	0.00	38,068.37	210,109.15	93,693.87	61,197.50	42,247.25	56,752.25	41,275.75	58,388.63	0.00	71,215.63	20,311.75	15,600.00	-55,564.01	55,564.01	0.00	0.00
Task Orders Charles Town	56,820.00	0.00	56,820.00	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	0.00	0.00	0.00	0.00
3 **LEGAL SERVICES**																					
a Local Project Attorney (PSC)	100,000.00	0.00	65,836.78	25,573.71	0.00	0.00	2,730.00	0.00	260.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,000.00	3,599.51	-3,599.51	0.00	0.00
b Permitting / Ord Attorney	215,000.00	0.00	199,514.04	0.00	0.00	0.00	15,485.96	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
c RA Attorney Stranko / Luttrell	12,959.40	12,959.40	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	0.00	0.00	0.00	0.00
4 **ADMINISTRATIVE SERVICES**																					
b (CPA)	16,723.00	0.00	16,723.00	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	0.00	0.00	0.00	0.00
c Other Administrative Costs	2,750.00	0.00	2,750.00	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	0.00	0.00	0.00	0.00
5 **LAND COSTS**																					
b Easements	324,611.85	0.00	324,611.85	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	0.00	0.00	0.00
SOFT COST CONTINGENCY	74,667.36	0.00	0.00	0.00	0.00	0.00	74,667.36	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
Interest on Line of Credit	59,887.52	59,887.52	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	0.00	0.00	0.00	0.00
Amount Owed Line of Credit		1,157,834.58																			
Charles Town's Cost Incurred			826,150.49																		
9 Sub Total Lines 1-8	**10,473,232.00**	**1,157,834.58**	**826,150.49**	**40,862.96**	**90,000.00**	**1,359,646.76**	**2,198,655.63**	**1,208,410.92**	**624,030.21**	**267,396.61**	**381,546.85**	**505,701.10**	**565,602.21**	**494,150.89**	**251,729.56**	**179,740.93**	**99,600.00**	**222,172.30**	**0.00**	**222,172.30**	**222,172.30**
ESCROW DEPOSIT UPON AMLEA SUBMITTAL TO WV PSC (Ranson and Charles Town Costs Incurred)																					
ESCROW DEPOSIT FOR CONSTRUCTION																		**222,172.30**		**222,172.30**	**0.00**

*The construction contingency line item has been reduced by $26,768 to reflect the installation of 120 linear feet of 16" steel casing for a sanitary sewer crossing that was funded by Rockwool during the water line project.

CITCO WATER

CITCO Water
4938 BENEDUM DRIVE
BRIDGEPORT, WV 26330
Phone 304-592-3884
Fax 304-592-5779

Quotation

EXPIRATION DATE	QUOTE NUMBER
02/26/2021	S100138283

CITCO Water
4938 BENEDUM DRIVE
BRIDGEPORT, WV 26330
Phone 304-592-3884
Fax 304-592-5779

QUOTE TO:

CHARLES TOWN UTILITY BOARD
661 GEORGE STREET
SUITE 101
CHARLES TOWN, WV 25414

SHIP TO:

CHARLES TOWN UTILITY BOARD
OFFICE
661 S GEORGE STREET
CHARLES TOWN, WV 25414

CUSTOMER NUMBER	CUSTOMER PO NUMBER	JOB NAME / RELEASE NUMBER	SALESPERSON
14161	vgb quote		Rocky Bragg

WRITER	SHIP VIA	TERMS	SHIP DATE	FREIGHT ALLOWED
Stephen Hunter	BEST WAY	NET 30 DAYS	12/28/2020	No

ORDER QTY	DESCRIPTION	UNIT PRICE	EXT PRICE
1ea	NOMAD 5 WiFi/BT/ WWAN - US/CAN/EMEA TW-NMD5XY-102-00	2400.000/ea	2400.00
1ea	M4700 VEHICLE GATEWAY BASESTATION (VGB) LESS COMPUTER	21000.000/ea	21000.00
1ea	AUTOVU MAPPING SOFTWARE WITH GPS, INCLUDES ONE COUNTY MAP 5395480035009	5500.000/ea	5500.00
1ea	USB GPS RECEIVER US GLOBAL SAT BU-353S4	50.000/ea	50.00

Extras not listed or spelled out are not included in pricing.
We reserve the right to correct clerical errors.

Subtotal	28950.00
S&H Charges	0.00
Amount Due	28950.00

Printed By: HUNSTE on 12/28/2020 3:19:05 PM EST

HATCH

704 Quince Orchard Road, Suite 310
Gaithersburg, MD 20878

P: 301-840-1030
F: 412-809-6611

January 6, 2021

Ms. Kristen M. Stolipher, Assistant Utility Manager
Charles Town Utility Board
661 South George Street, Suite 101
Charles Town, WV 25414

Re: Task Order #10A – Magnolia Springs Water and Sanitary Sewer Inspection
(Pass through to Developer)
Engineering Services for Water/Wastewater Systems Upgrades Projects

Dear Kristen,

We are pleased to submit our proposal for Task Order #10A to continue inspection services of the Phase 1 water and sanitary sewer public system installation. The original task order will be greater than 80% expended in January (currently approximately 70% expended).

The original 17-week schedule at Magnolia Springs subdivision is now exceeded as the construction started on August 31, 2020 and is currently ongoing – the 18th week. Kinsley Construction (MS) has not provided an updated project schedule showing their anticipated completion so the anticipated hours for this task order amendment is only an estimate at this time. Further effort may or may not be necessary to oversee the completion of the water and sewer infrastructure installation for Phase 1.

Scope of Services

The services of Hatch and Specialized Engineering will continue as outlined under the original task order.

Schedule

The inspection services will be performed based on the Contractor's installation schedule (pending from Kingsley Construction). It is imperative that the Contractor coordinate their weekly progress and projections for the upcoming week each week with Hatch's and Specialized Engineering's Project Manager, so the required on-site representation does not delay the Contractor's progress or a minimum 4-hour charge for a 'cancel-on-arrival' visit is not charged at the responsibility of the Contractor.

Proposed Fee

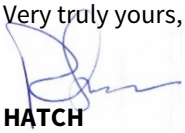
The estimated fee for Task Order #10A as outlined above is $45,400 with the effort invoiced in accordance with the attached breakdown. This estimate is only an estimate for approximately an additional 6-8 weeks of inspection. We note that an updated modified project schedule is not available to provide a more accurate estimate. If this task order amendment effort has reached approximately 80% (~$36,300), a new proposal will be submitted for the additional field/office effort to carry the services through the completion of Phase 1 water and sewer construction.

Terms and Conditions

The Terms and Conditions shall be in accordance with the base contract entitled Agreement between Charles Town Utility Board and Engineer for Engineering Services for Water/Wastewater Systems Upgrades Projects, dated February 21, 2019.

Should you have any questions or require any additional information, please do not hesitate to contact me at 240.751.7002 or by email at richard.travers@hatch.com.

Very truly yours,



HATCH
Rick Travers, P.E.
Sr. Project Manager

TO#10A Fee Estimate Breakdown

TO#10A Accepted – DR Horton

Approved By: _____ Date: 2/18/21

Printed Name: _____ Title: _____

TO#10A Accepted – Charles Town Utility Board

Approved By: _____ Date: _____

Printed Name: _____ Title: _____

HATCH

Project Duration: 8 weeks ** see not below
2 months

Project Staffing and Budget Estimate (2019 Standard Rates)

Date: 12/16/2020

Project: TO#10A Magnolia Springs Inspection, Phase 1 **Client: Charles Town Utility Board**

By: Travers

Task No.	Task	Principal**	Sr. Project/ Technical Manager	Project/ Technical Manager	Sr. Engineer	Engineer	Junior Engineer	Sr. Technician/ Designer	Professional Engineer (P.E.)**	Project Manager**	Construction Manager**	Senior Inspector**	Inspector**	Admin. Assistant**	Total Labor	Subs	Reimb. Allowance	Total Direct	Total
		$342.00	$260.00	$234.00	$182.00	$156.00	$118.00	$138.00	$175.00	$145.00	$130.00	$115.00	$100.00	$35.00					
1	Management Coordination & Monthly Invoicing		4												$1,040		$0	$0	$1,040
2	Pump Station Submittal Review				40										$7,280		$364	$364	$7,644
3	Field Inspections/Reporting, including Pump Station								8			240			$29,000		$1,450	$1,450	$30,450
4	Engineering Report Review									24					$3,480		$174	$174	$3,654
5	Report Processing													16	$560		$28	$28	$588
6															$0		$0	$0	$0
7															$0		$0	$0	$0
8															$0		$0	$0	$0
9															$0		$0	$0	$0
															$0		$0	$0	$0
	Contingency (10% Extra Hours)	0	0	0	4	0	0	0	1	2	0	24	0	2	$0		$0	$0	$0
	Project Management (0%, 2.5%, 0%)	0	4	0	0	--	--	--	0	7	--	--	--	--	$2,055		$0	$0	$2,055
	Total Hours	0	8	0	44	0	0	0	9	33	0	264	0	18	376				
	Total Cost	$0	$2,080	$0	$7,280	$0	$0	$0	$1,400	$4,495	$0	$27,600	$0	$560	$43,415	$0	$2,016	$2,016	$45,431

** Specialized Engineering staff

** This Task Order Amendment is due to additional crews added, an extended schedule, other tasks requested.

SAY $45,400

1. Fee Inclusion Summary *(Related to Scope of Services)* :
    - Inspector Labor
    - Project Management Coordination
    - Project Engineering Report Reviews
    - Administrative/Clerical Charges
2. Fee Exclusion Summary *(Related to Scope of Services)* :
    - All overtime beyond 40-hour weeks plus evenings, weekends, and holidays
    - Attendance at pre-construction meetings and meetings related to deficient work
    - Pre-Construction, Shop/Plant testing and inspections
    - Cancel-on-Arrival Visits; Construction Management services; Inspections related to house connections; Observation or testing of backfill operations; Full-time inspection
    - Additional or re-tests as directed by members of the design team (owner, owner's representative, developer, architect, engineer, and/or contractor, or related to deficient work).
3. Field personnel rates are invoiced with a four (4) hour minimum on site charge per base contract agreement.
4. Work hours that are beyond 40-hours weekly, evening/night shift and holiday work will be charged at 1.5 times the standard rate per the base contract agreement.

Notification at 80% $36,320



SEWER STRATEGIC PLAN

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2021-2024

CHARLES TOWN UTILITY BOARD

661 South George Street, Suite 101
Charles Town, West Virginia 25414

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Email: info@ctubwv.com

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Charles Town Utility Board (CTUB)
Sewer Strategic Plan
2021-2024

Adopted:

_____

BOARD OF DIRECTORS

Daryl Hennessy, Chairman - dhennessy@charlestownwv.us

Pete Kubic, Vice Chairman

Thomas Stocks, Treasurer

Keith Pierson, City of Ranson Mayor

Jacquelyn Milliron

CTUB MANAGEMENT

Kristen M. Stolipher, Utility General Manager – kstolipher@ctubwv.com

April L. Shultz, Assistant Utility Manager – ashultz@ctubwv.com

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EXECUTIVE SUMMARY

Purpose

The purpose of this Sewer Strategic Plan (SSP) is to document the Charles Town Utility Board's (CTUB) existing wastewater collection and treatment system to establish a plan for conveyance of all wastewater that will be generated within the region to the CTUB wastewater treatment plants during current and future periods of growth. Another major purpose of this SSP is the identification of wastewater peak flows and the evaluation of the capacity of the existing collection and conveyance system to convey these peak flows without backups of wastewater into homes and businesses and without sanitary sewer overflows. The City of Charles Town, by and through CTUB first published a SSP in 2007. The most recent revision to the SSP was approved by CTUB on April 25, 2018. Pursuant to a resolution for a tri-annual SSP update, the current amendment serves as the required April 2021 update. The SSP is adopted by the CTUB Board of Directors. Upon adoption, development of actions to implement the SSP can begin. The SSP provides an overall high-level direction to prioritize resources and achieve future success.



Since the adoption of the last SSP, CTUB, through the City of Charles Town, acquired the assets of the City of Ranson Sewer System and the Jefferson County Public Service District. These acquisitions occurred on July 1, 2018 and January 1, 2019, respectively. The wastewater treatment and collection systems of the consolidated regional utility are reviewed herein. Growth has been increasing in the region and will be monitored to ensure that appropriate measures are taken to address sewer infrastructure and capacity needs. Growth projections are included in this SSP, and will be, in part, considered in determining the timing of those future capital improvements. This plan details the growth within the system based on growth projections as provided by the local planning and zoning agencies.

Scope

The principal issues examined as part of this revision to the SSP include the following:

- Analyze growth scenarios and develop plant and collection system expansion needs.
- Evaluate existing and future wastewater characteristics.
- Evaluate the existing wastewater collection system and treatment process in relation to future flows, loads and discharge standards.
- Assess system improvement needs, including capital costs and O&M requirements.
- Develop timeframes associated with necessary system improvements.
- Update planning for future sewerage facilities to serve existing and expanded service area.

Plan Updates

CTUB has committed to updating this document on a tri-annual basis. Adjustments based on actual construction and new information regarding growth are considered. The accuracy of the planning process continues to be enhanced through the development of current data and historical data captured in previous SSP's.

Tri-annual updating is expected to proceed in accordance with the following schedule:

- January New data, information, and comments solicited from stakeholders
- February Plan updated. Board of Directors workshop to review DRAFT SSP
- March Draft Plan issued for comments
- April Plan revised, adopted and published

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Project Planning

Since the last SSP was adopted, Jefferson County has experienced an increase in both residential and commercial growth. Additionally, the consolidation of utilities has provided the opportunity to evaluate efficiencies and operational modifications to allow for costs savings and value engineering of capital improvements. This SSP serves as a framework for decision making outlining the specific goals, strategies and objectives for the purpose of planning for future capital improvements based on a 10-year planning period from 2021 to the year 2031. Historical connections, population estimates and hydraulic and organic loading data provide a basis from which expansion planning specific to the CTUB infrastructure is projected for interim periods. Based on analysis of available information the following recommendation outline projected near and long-term improvements:

- Completion of Renewal and Replacement project
    - Charles Town Wastewater Treatment Plant (CTWWTP)
        - One fine screen
        - Grit removal
        - Three (3) influent pumps and control upgrades
        - SBR control panel upgrade
        - UV system upgrade
        - Sludge handling system and building
        - Lime Feed System
        - Main Utility Disconnect, ATS and MCC-1 Replacement
        - Wiring/Conduit and SCADA Replacement
    - Tuscawilla Wastewater Treatment Plant (TWWTP)
        - Two fine screens and channel modifications/Removal of existing fine drum screens
        - MBR Equipment upgrades
- Completion of the 2021 collection system projects
- Fairfax Crossing Parallel Line
- Forrest Avenue Pump Station relocation
- Future - Expansion of CTWWTP from 1.5 MGD to 3.5-4.0 MGD
- Future - Tuscawilla Phase 2 Upgrade to 1.0 MGD.

Project Recommendations

Critical infrastructure upgrades will be detailed in this SPP. This will include a review of completed projects and future capital improvements. Since the last version of the SSP, consolidation of the CTUB, Ranson and JCPSD sewer utilities has been executed which was a monumental accomplishment for the regional utility. Several projects noted above were initiated prior to consolidation and remain necessary for proper operation of the system. In addition to the system wide improvements, it is necessary to begin planning and engineering for expansion of the CTWWTP in the next 10 years.

Financial

The projected costs associated with the projects outlined above are detailed in this plan. CTUB is in the process of rate equalization and evaluation of Capacity Improvement fees which may impact how these projects are financed. CTUB continues to pursue a strategy for funding upgrades, and expansions in a manner that will minimize the burden to the current and future ratepayers. The Board intends to fund the costs for the renewal and replacement project and the facility expansions through conventional rate impacts, payment of prior bonds and Capacity Improvement Fees (CIFs). The CTWWTP and TWWTP Phase 2 Upgrade to 1.0 mgd would require separate funding strategies in a future SSP publication. CTUB is also currently developing a class cost of service study to reassess rate and connection fees that need to be implemented to adequately fund operation and maintenance as well as future capital and growth-related projects. If the current sewer rate is insufficient to generate funds prior to the next phase of expansion, the City can consider increasing rates to defray the capital costs.

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INTRODUCTION

Background

The Mission of the Charles Town Utility Board (CTUB) is to provide reliable water and sewer services that protect public health and the environment with financial accountability, regional stewardship, and superior customer service. Specific goals and key areas of focus are:

Customer Service – Provide efficient and effective level of service to meet customer and stakeholder expectations.

Environmental Stewardship – Take advantage of opportunities to invest in energy efficiency, renewable energy, water and sustainable practices that protect the environment. Meet all applicable regulatory notification and reporting requirements.

Infrastructure Maintenance – Properly manage, operate and maintain all parts of the wastewater collection system and provide best service in a cost-effective manner to the customer.

Financial Stability – Manage the CTUB finances to support the Utility needs and maintain reasonable sewer rates.

Workforce Planning and Development – Provide team-oriented workforce that is fully trained, fairly compensated, and accountable with clearly defined career paths for the evolving work environment.

Operational Optimization – Improve functions that support the administrative, financial, technical and field activities and provide the best service to the customer.

CTUB is a combined water and sewer utility that provides sanitary sewerage collection and treatment services for approximately 8,015 sewer customers comprising residential, commercial, industrial and public authority entities within the municipalities of the City of Charles Town, the City of Charles Town as well as the surrounding areas within Jefferson County. The County has a population of just over 57,000 and encompasses 212 square miles.

CTUB has a five (5) member Board of Directors that meets twice monthly to consider issues of substance for Utility operations, making recommendations to the Utility Manager regarding infrastructure management, finances and other policy questions. Subsequent to the Utility consolidation, the Board of Directors has representation from the City of Ranson and Jefferson County (including a voting member and non-voting County Commission liaison). The Board of Directors are appointed by the Mayor and Council of the City of Charles Town and serve staggered four-year terms. In addition to the appointment of the Board of Directors, the City of Charles Town is responsible for the following as it pertains to CTUB:

1) Retains ownership of the assets of the system
2) Authorization of all changes in rates and charges for the water and sewer system
3) Issuance of bonds, notes and other debt obligations secured by the gross revenues of the system
4) Approval of capital projects for the water and sewer system which are not in the “normal course of business”; and
5) Approval of real property condemnations for the System.

CTUB has 31 full-time employees, 2 part-time employees and a sewer operating budget of roughly $6 million annually. Infrastructure assets include three (3) wastewater treatment plants, 125 miles (over 100 miles of gravity and over 25 miles of force main) and 47 pump stations.

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Utility Consolidation



Consolidation has been discussed for many years and throughout various SSP's. On July 1, 2018 and January 1, 2019, the acquisition of the City of Ranson Sewer system and JCPSD, respectively, by the City of Charles Town were complete. The consolidation efforts included incorporation of both the City of Ranson and JCPSD current rates and charges to the City of Charles Town Sewer Tariff. This acquisition can be attributed to the dedicated elected officials in Charles Town, Ranson and Jefferson County that had the foresight to acknowledge the efficiencies and cost savings of utility consolidation. Thanks to all of those that participated in this monumental accomplishment.

Post consolidation, CTUB operates three wastewater facilities: the Charles Town Wastewater Treatment Plant (CTWWTP), the Tuscawilla Wastewater Treatment Plant (TWWTP) and the Deerfield Sewer Treatment Plant (not connected to the larger CTUB system as it serves the Deerfield residential development near Shepherdstown).

CTUB maintains over 125 miles of collection lines and 47 pumping stations which transfer flows from the customer point of connection to the treatment facilities. CTUB has the ability to treat flows interchangeably between the CTWWTP and TWWTP facilities through the Huntfield Transfer Pump stations.

Facilities Plan Summary

The period used for planning efforts for the Renewal and Replacement projects and 2021 collection system projects are based on a 10-year planning period. This period is the basis for evaluating population growth, estimating treatment capacity requirement and evaluating treatment process alternatives. The overall planning period extends from 2021 to 2031. CTUB intends to complete a sewer master plan in 2021 upon completion of the sewer modeling efforts to assist with development of updated capacity improvement fees requirements and capital improvement projects for the next 15 years. Any capital projects identified in the sewer master plan will be included in future SSP's.

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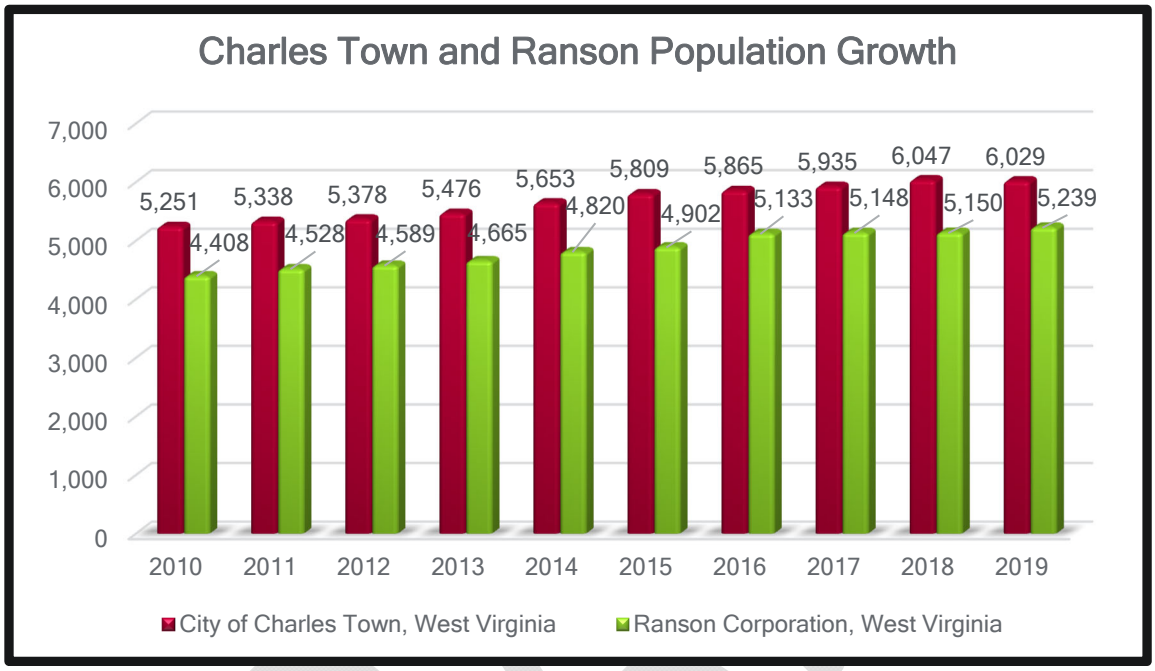
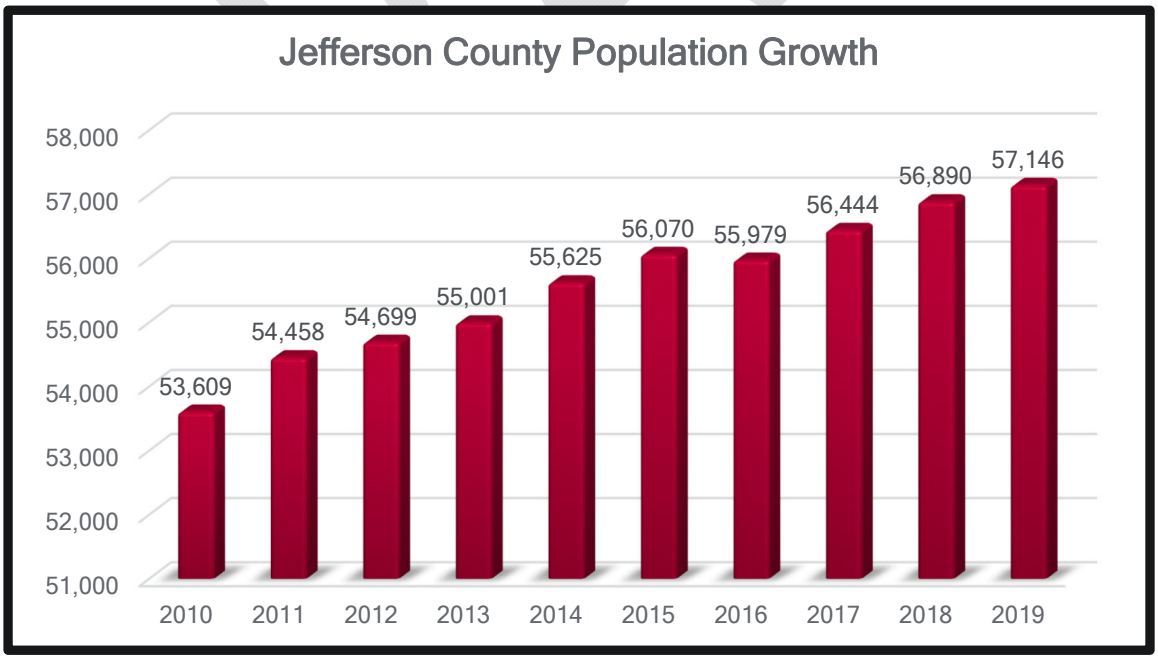
EXISTING CONDITIONS

Regional Growth and Service Area

The City of Charles Town, City of Ranson and Jefferson County have continued to experience consistent growth since the issuance of the last SSP. A demonstrated in the charts below, the growth rates in the region have maintained a steady 1% growth increase on an annual basis:





Reference: Annual Estimates of the Resident Population for Incorporated Places in West Virginia: April 1, 2010 to July 1, 2019 (SUB-IP-EST2019-ANNRES-54). Source: U.S. Census Bureau, Population Division, Release Date: May 2020.

The City of Charles Town, City of Ranson and the Jefferson County Department of Planning, Zoning and Engineering have provided information regarding permits obtained since the issuance of the last SSP. Table 1.1 illustrates the past three years of residential and commercial development data. This historical data shows that an average of xx residential units are built per year.

Table 1.1 - Development Growth Trend 2018-2020

			New Connections		
Region	**Subdivision**	**Type**	**2018**	**2019**	**2020**
County	Deerfield	Residential	2	1	2
County	Aspen Greens	Residential	10	10	18
County	Beallair	Residential	3	7	3
County	Locust Hill	Residential	6	6	0
County	Walnut Grove	Residential	1	0	2
County	Burr Park	Commercial	2	2	4
County	Somerset	Commercial	1	0	0
County	Cambridge	Residential	0	5	0
County	Woodland MHP	Residential	0	2	0
County	Charles Town	Residential	0	6	4
County	Tuscawilla	Residential	0	1	0
County	Orchard Hills	Residential	0	0	1
Charles Town	CT Limits	Commercial	1	1	1
Charles Town	CT Limits	Residential	6	3	5
Ranson	Ranson Limits	Commercial	0	0	2
Ranson	Ranson Limits	Residential	4	3	1
Ranson	President's Pointe	Residential	0	0	70
Ranson	Shenandoah Springs	Residential	34	30	7
Ranson	Briar Run	Residential	21	31	21
Ranson	Jefferson Crossing	Residential	24	0	36

Total Residential Building Permits	**111**	**105**	**170**
Total Commercial Building Permits	**4**	**3**	**7**

Future Development Projections

In addition to the historical information that was provided, future development forecasts were obtained that will be monitored to determine necessary improvements to the sewer system. For the purposes of these future projections and average annual build-out of 20 units per year for larger subdivisions/developments was used based on the historical trends of building within the County. These projections may vary depending on various economic factors. Details of the projections are presented in Table 1.2 and known historical data has been utilized for future volumetric capacity forecasting. A full copy of the Development Forecast is included in Appendix A.

Table 1.2 -CTUB Sewer Strategic Plan 2021-2024 Development Forecast

Development	Total Design EDUs	Total Built as of 2021	20 year forecast to be built	Total Flow	Beyond 20 year forecast	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	Years 11-20 2031-2040	TOTAL @ Year 20	TOTAL REMAINING
American Heritage (Huntwell)	500	0	500	75,000	200	0	0	0	20	20	20	20	20	20	20	160	300	200
Aspen Green	203	46	157	30,450	0	20	20	20	20	20	20	20	17	0	0	0	157	0
Beallair	372	112	260	55,800	0	20	20	20	20	20	20	20	20	20	20	60	260	0
Blackford Village	338	0	338	50,700	0	0	0	20	20	20	20	20	20	20	20	178	338	0
Breckenridge East	300	0	300	45,000	100	0	0	0	0	0	0	0	0	0	0	200	200	100
Briar Run	131	122	9	19,650	0	9	0	0	0	0	0	0	0	0	0	0	9	0
Burr Industrial Park & Bardane	200	170	30	30,000	0	3	3	3	3	3	3	3	3	3	3	0	30	0
Cambridge	134	85	49	20,100	0	5	5	0	0	0	0	0	0	0	0	39	49	0
Charles Town Infill	250	0	250	37,500	150	5	5	5	5	5	5	5	5	5	5	50	100	150
Clayhill Farm	300	0	300	45,000	20	0	0	0	0	0	20	20	20	20	20	180	280	20
Daniels Forest	192	0	192	28,800	0	0	0	0	0	0	20	20	20	20	20	92	192	0
Fritts Property	370	0	370	55,500	50	0	0	0	0	20	20	20	20	20	20	200	320	50
Harvest Hills	392	6	386	58,800	166	0	0	0	0	0	0	0	0	0	20	200	220	166
Huntfield	3,200	421	2,779	480,000	2,459	0	0	0	0	20	20	20	20	20	20	200	320	2459
Jefferson Heights North	262	0	262	39,300	122	0	0	20	20	15	15	15	15	15	15	10	140	0
Tate Manor	80	0	80	12,000	0	20	20	20	20	0	0	0	0	0	0	0	80	0
Lakeland Place / Lloyd's	600	0	600	90,000	220	0	20	20	20	20	20	20	20	20	20	200	380	220
Jefferson Orchards	888	0	888	133,200	688	0	0	0	0	0	0	0	0	0	0	200	200	688
Langlet	1,000	0	1,000	150,000	800	0	0	0	0	0	0	0	0	0	0	200	200	800
Lloyd Property	500	0	500	75,000	300	0	0	0	0	0	0	0	0	0	0	200	200	300
Locust Knoll	359	0	359	53,850	59	0	0	0	0	0	20	20	20	20	20	200	300	59
Magnolia Springs	300	0	300	45,000	0	20	20	20	20	20	20	20	20	20	20	100	300	0
Norborne Glebe	1,050	246	804	157,500	484	0	0	0	20	20	20	20	20	20	20	180	320	484
Old Town Ranson - Infill	250	0	250	37,500	150	5	5	5	5	5	5	5	5	5	5	50	100	150
Potomac Marketplace	54	0	54	8,100	0	0	5	5	5	5	5	5	5	5	5	9	54	0
President's Pointe	1,100	77	1,023	165,000	0	50	50	50	50	50	50	50	50	50	50	523	1,023	0
Prospect Place	170	0	170	25,500	0	0	0	0	0	9	9	25	25	25	25	52	170	0
Ranson Gateway / Boulevard	1,175	0	1,175	176,250	835	0	0	0	20	20	20	20	20	20	20	200	340	835
Shenandoah Springs	705	259	446	105,750	46	20	20	20	20	20	20	20	20	20	20	200	400	46
Stolipher	324	0	324	48,600	124	0	0	0	0	0	0	0	0	0	0	200	200	124
Washington Landing	274	0	274	41,100	0	0	0	0	50	50	50	50	50	24	0	0	274	0
Winchester Cold Storage	675	0	675	101,250	125	0	0	0	0	0	0	0	0	0	50	500	550	125
Windmill Crossing	150	146	4	22,500	0	1	1	1	1	0	0	0	0	0	0	0	4	0
Total Projected Development	**7,086**	**728**	**6,358**	**1,062,900**	**2,123**	**96**	**101**	**101**	**191**	**199**	**219**	**235**	**235**	**209**	**235**	**0**	**4,235**	**2,123**

The housing market in the region has continued in an upward trend with several large housing developments currently under construction. Commercial growth and the completion of the Rockwool Facility since the development of the last SSP have contributed to growth in the CTUB system.

WASTEWATER TREATMENT

Description of Existing Treatment Systems

CTUB operates three wastewater plants: the Charles Town Wastewater Treatment Plant (CTWWTP), the Tuscawilla Wastewater Treatment Plant (TWWTP) and the Deerfield Sewer Treatment Plant. These wastewater facilities are designed to treat the wastewater collected throughout the community and return the treated water to the environment. The treat methods included a number of physical and biological processes designed to provide optimal conditions for nutrient removal. CTUB is regulated by the West Virginia Department of Environmental Protection (WVDEP) through the U.S. Environmental Protection Agency (EPA).

Charles Town Wastewater Treatment Plant (CTWWTP)

The CTWWTP is located on WV route 115 in Charles Town. The 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) grinder (Muffin Monster) removed from service on April 8, 2019, one (1) coarse bar 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, one (1) ultraviolet (UV) disinfection system and a utility water system (currently not in use). The solids handling consists of three (3) aerobic digesters operated in parallel, that were converted from secondary clarifiers, one (1) "day tank" digester, one (1) 573,000-gallon aerobic digester (currently not in use), one (1) sludge transfer pump, one (1) belt filter press with conveyor and one (1) lime silo with one (1) dry feed system and screw auger. The belt filter solids are land applied on farms permitted by the WV DEP.

The Charles Town facility originally consisted of primary treatment, activated sludge tanks, secondary settling basins, disinfection by chlorination, aerobic sludge digestion and sand drying beds. The plant was expanded in 1987 to include a third aeration basin and settling basin. Additionally, the plant added an open-channel Ultraviolet Disinfection (UV) unit and a belt filter press with the associated structures. The sand drying beds were removed as part of this expansion.

The plant was upgraded in 2001 and converted the SBR to an ICEAS process. The current influent pump station, headworks building and blower building were also constructed as part of this upgrade. The 573,000-gallon aerobic digester tank was added to the facility during an upgrade in 2005. The digester tank was built to provide additional sludge processing time and increased storage capacity in an effort to produce higher quality solids. Additionally, denitrification filters were installed at the facility in 2016, which included chemical addition facilities for a coagulant for phosphorus precipitation and carbon for denitrification.



The CTWWTP accepts non-domestic wastewater from the Charles Town Water Plant. The Utility Board currently hauls approximately 6,000 gallons per week of non-domestic liquid water

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treatment facility sludge from their existing plant to the CTWWTP digester for processing and thickening. This sludge which is 2-4% solids, consists primarily of river laden material such as sand and dirt along with an aluminum-based coagulant from the sedimentation basins and conventional sand filters. The contents are generally rich in total organic carbon (TOC) from the river source and are difficult to press with the existing Ashbrook belt filter press. The filtrate from the press is returned back to the headworks. The maximum daily permitted volume is 10,000 gallons. The designated NPDES discharge is Outlet No. 001.

The water treatment plant sludge requires a significant amount of polymer addition and adds to the total amount of generated dry tons. It also increases the amount of lime needed for raising the solids pH content. CTUB is currently pursing alternative options to treat and dispose of the water treatment facility sludge. The future plans consist of completely eliminating the sludge from the wastewater treatment facility process.

The CTWWTP operates under the West Virginia NPDES No. WV0022349. The current permit, reissued on July 21, 2016, expires on June 30, 2021. The permit renewal application to WVDEP was submitted in December 2020 and CTUB will be working with WVDEP on the permit renewal in the first half of 2021. The permit renewal will incorporate the CTWWTP and TWWTP along with the JCPSD Permit WV0083461 which includes the Industrial Users connected to the CTUB system.

The CTWWTP is permitted for an annual average flow of 1.75 million gallons per day (MGD). Additionally, if the facility discharges 90% (1.58 MGD) or more of its permitted flow over 3 consecutive months, a Plan of Action must be developed and submitted to the Department. The 2018 monthly average effluent flows for November and December exceeded 1.58 MGD. The monthly average influent flows during 2018 compared to the same month's monthly average effluent flow ranged from 0.239 to 0.808 MGD greater.

This facility serves a population equivalent of approximately 17,500 persons in the City of Charles Town, the City of Ranson and the surrounding areas of Jefferson County and discharges treated wastewater through Outlet No. 001 to Evitts Run, approximately 4.5 miles from its mouth, of the Shenandoah River of the Potomac River.

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CTWWTP Flows and Loading

Historical flow and loading data have been compiled and analyzed for the system. This data provides the basis for projecting future flows and loadings to better understand the timing when a capacity restriction may occur at one of the treatment processes and thus must be addressed in order to provide adequate capacity to serve future growth. Table 1.3 summarize the historical and current values for flow, BOD, TSS, NH3, TN and TP concentrations.

TABLE 1.3: CTWWTP PLANT FLOWS 2018-2020

2018			2019			2020		
	TOTAL	AVERAGE		TOTAL	AVERAGE		TOTAL	AVERAGE
JANUARY	32.66	1.05	JANUARY	51.37	1.66	JANUARY	39.05	1.26
FEBRUARY	30.25	1.08	FEBRUARY	43.72	1.56	FEBRUARY	36.74	1.27
MARCH	32.34	1.04	MARCH	44.32	1.43	MARCH	36.76	1.19
APRIL	31.04	1.04	APRIL	37.29	1.24	APRIL	33.32	1.11
MAY	52.19	1.68	MAY	45.1	1.45	MAY	35.50	1.15
JUNE	39.84	1.33	JUNE	33.83	1.13	JUNE	33.44	1.11
JULY	39.86	1.29	JULY	39.09	1.26	JULY	34.45	1.11
AUGUST	43.63	1.41	AUGUST	33.33	1.08	AUGUST	32.65	1.05
SEPTEMBER	42.24	1.41	SEPTEMBER	30.89	1.03	SEPTEMBER	32.43	1.08
OCTOBER	45.50	1.47	OCTOBER	32.86	1.06	OCTOBER	33.91	1.09
NOVEMBER	50.36	1.68	NOVEMBER	30.65	1.02	NOVEMBER	33.49	1.12
DECEMBER	50.97	1.64	DECEMBER	36.55	1.18	DECEMBER	40.39	1.3
Annual Total	**490.87**	**1.34**	**Annual Total**	**459**	**1.26**	**Annual Total**	**422.13**	**1.15**

Table 1.4 below summarizes the historical plant flow for the CCWWTP from 2016 through 2020. The percent plant capacity on a Maximum 3-month average daily flow basis varied from 71% to 95%. The plant expansion has been noted in the past several SSP's and is further discussed in the future projects section of this SSP. Growth has continued to increase and will be monitored to ensure that appropriate measures are taken to address sewer infrastructure and capacity needs in order to meet the needs of the regional utility.

It should be noted that 2018 was a year of extraordinary rainfall, however the 2019 running average approached the permit conditions as well. Based on this review, there are several optimization efforts that have been recommended by CTUB Engineer's Gwin, Dobson & Foreman in advance of the CTWWTP expansion that may extend the service life of the existing facility, enhance process operations and provide additional capacity and improve treatment efficiencies.

Table 1.4: Historical Plant Flow CTWWTP

Year	Total Annual Flow (MG)	Annual Average Daily Flow (MGD)	Average Daily Flow (3 month max.)	Permit Capacity (MGD)	Percent Capacity (Average 3 month max/Permit)
2016	419	1.14	1.26	1.75	72%
2017	393	1.25	1.43	1.75	82%
2018	491	1.34	1.67	1.75	95%
2019	459	1.25	1.56	1.75	89%
2020	420	1.15	1.25	1.75	71%

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The CTWWTP and TWWTP Facilities share total effluent loading limits to the Chesapeake Bay via Outfall 003. Table 1.5 below details the outlets associated with WV0022349:

Table 1.5: WV/NPDES WV0022349 Outfall Descriptions	
Outfall ID	**Project Description**
001	Charles Town Plant outlet to Evitts Run
002	Tuscawilla Plant outlet regardless of whether it is discharged to Evitts Run or used for spray irrigation
202	Contribution of the total load from the Tuscawilla Plant that is used by the golf course for spray irrigation
203	Contribution of the total load from the Tuscawilla Plant that is discharged directly to Evitts Run through the new effluent line
003	Total load actually discharged to Evitts Run. This is the calculated sum of the loads determined from Outlet 001 and Internal Outlet 203.

The effluent limits for Outfall 001 are listed below in Tables 1.6 through 1.8 and the minimum sampling and monitoring frequencies are listed in Table 1.6.

Table 1.6: NPDES EFFLUENT LIMITS (OUTLET 001) BOD5, TSS AND AMMONIA-NITROGEN						
Effluent Characteristics	**Monthly Average Loading Rate, lbs./day**	**Weekly Average Loading Rate, lbs./day**	**Max Daily Loading Rate, lbs./day**	**Monthly Average Concentration, mg/L**	**Weekly Average Concentration, mg/L**	**Max Daily Concentration, mg/L**
BOD5	301	N/A	601	20.6	N/A	41.2
TSS*	438	N/A	876	30	N/A	60
Ammonia-Nitrogen as N	60	N/A	120	4.1	N/A	8.2

Table 1.7: TMDL ANNUAL WASTELOAD ALLOCATIONS: NITROGEN AND PHOSPHOROUS			
Effluent Characteristics	Charles Town Plant (Outfall 001)	Tuscawilla Plant (Outfall 203)	Annual Total Load Limit (Outfall 003)
Total Nitrogen	32,115 lbs.	10,740 lbs.	42,855 lbs.
Total Phosphorus	3,577 lbs.	1,790 lbs.	5,367 lbs.

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Table 1.8: EFFLUENT LIMITS (OUTFALL OO1); COLIFORM, RESIDUAL CHLORINE, Ph AND D.O.		
Effluent Characteristics	**Maximum**	**Minimum**
Fecal Coliform	200 Counts/100 mL (Geo. Mean) 400 Counts/100 mL (Maximum)	N/A
pH	9	6
Dissolved Oxygen (All Year)	N/A	6.0 mg/L at anytime

Table 1.9: ANNUAL NPDES PERMIT MINIMUM MONITORING REQUIREMENTS (OUTLET 001)		
Effluent Characteristics	**Measurement Frequency**	**Sample Type**
BOD5	Once per week	24-hour composite
BOD5 % Removal	Four per month	Calculated
Total Suspended Solids (TSS)	Once per week	24-hour composite
Suspended Solids % Removal	Four per month	Calculated
Fecal Coliform	Once per week	Grab
pH	Once per week	Grab
Dissolved Oxygen	Once per week	Grab
Ammonia Nitrogen	Once per week	24-hour composite
Total Nitrogen as N (Monthly)	Once per week	24-hour composite
Total Nitrogen as N (Yearly)	Once per year	Calculated
Total Phosphorous (Monthly)	Once per week	24-hour composite
Total Phosphorous (Yearly)	Once per year	Calculated
Total Copper	Once per quarter	24-hour composite
Total Lead	Once per year	24-hour composite
Total Zinc	Once per year	24-hour composite
Total Arsenic as As	Once per year	24-hour composite
Total Cadmium	Once per year	24-hour composite
Hexavalent Chromium	Once per year	24-hour composite
Cyanide	Once per year	Grab
Total Mercury as Hg	Once per month	Grab
Total Nickel	Once per year	24-hour composite
Total Silver	Once per year	24-hour composite
Total Hardness as CaCO3	Once per 6-month period	Grab
Total Aluminum	Once per quarter	24-hour composite
Chloride as Cl	Once per quarter	24-hour composite
Chronic Tox. - Cerlodaphina Dubia	Once per year	24-hour composite
Chronic Tox. - Pimephales Promelas	Once per year	24-hour composite
Flow	Continuous	Measured

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Annual effluent loading limits contained in the permit were established under the Chesapeake Bay Total Maximum Daily Load (TMDL) for total nitrogen (TN) and total phosphorus (TP). The Charles Town and Tuscawilla Facilities share total effluent loading limits to the Chesapeake Bay via Outfall 003. The other discharge limits are typical water quality - based limitations developed by the West Virginia Department of Environmental Protection.

Table 1.10: SUMMARY CTWWTP FLOW DATA AND LOADING REVIEW

Flow Type	Measurement Frequency	Remarks
Minimum Hourly Flow *	0.138	Minimum daily flow for the period from January 2016-December 2019
Monthly Average Flow*	1.5	Monthly average flow for the period from January 2016- December 2019
Permitted Plant Capacity*	1.75	WVDEP Permitted Plant Capacity
Permitted Maximum 3 Month Average Flow	1.58	90% Permitted Plant Capacity
Maximum Monthly Average Flow*	2.22	Maximum monthly average flow occurred in September 2018
Maximum Weekly Flow	1.39	Log Pearson Type III analysis of 50% probability occurrence of all from January 2016 through December 2019 flow events
35% Probability Occurrence, Peak Flow	1.55	Log Pearson Type III analysis of 35% probability occurrence of all from January 2016 through December 2019 flow events
20% Probability Occurrence, Peak Flow	1.9	Log Pearson Type III analysis of 20% probability occurrence of all from January 2016 through December 2019 flow events
Maximum 3 month Running Average	2	Log Pearson Type III analysis of 9% probability occurrence of all from January 2016 through December 2019 flow events
Maximum Daily Flow	2.2	Log Pearson Type III analysis of 5% probability occurrence of all from January 2016 through December 2019 flow events
Peak Hourly Flow	2.56	Log Pearson Type III analysis of 2% probability occurrence of all from January 2016 through December 2019 flow events
Peak Instantaneous Flow*	4.34	Maximum system flow of 4.339 MGD recorded from January 2016 through December 2019

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Tuscawilla Wastewater Treatment Plant (TWWTP)

The TWWTP 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 aerobic sludge is transported to the CTWWTP 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 Run, which is a tributary to the Shenandoah River, via a pumping system (to the east). The upgraded TWWTP has been in operation since 2014. In August of 2020 the MBR filters in Basin #3 were replaced with Toray Filters. The TWWTP operates under the West Virginia NPDES No. WV0022349. The current permit, reissued on July 21, 2016, expires on June 30, 2021. The permit renewal application to WVDEP was submitted in December 2020 and CTUB will be working with WVDEP on the permit renewal in the first half of 2021. The permit renewal will incorporate the CTWTTP and TWWTP along with the JCPSD Permit WV0083461 which includes the Industrial Users connected to the CTUB system. The TWWTP is permitted for an annual average flow of 0.5 million gallons per day (MGD).

TWWTP Flows and Loading

Historical flow and loading data have been compiled and analyzed for the system. This data provides the basis for projecting future flows and loadings to better understand the timing when a capacity restriction may occur at one of the treatment processes and thus must be addressed in order to provide adequate capacity to serve future growth. Table 2.1 summarize the historical and current values for flow, BOD, TSS, NH3, TN and TP concentrations.

TABLE 2.1: TWWTP PLANT FLOWS 2018-2020

2018			2019			2020		
	TOTAL	AVERAGE		TOTAL	AVERAGE		TOTAL	AVERAGE
JANUARY	4.00	0.13	JANUARY	6.25	0.2	JANUARY	0	0
FEBRUARY	3.52	0.13	FEBRUARY	4.98	0.18	FEBRUARY	0	0
MARCH	3.71	0.12	MARCH	7.53	0.24	MARCH	0	0
APRIL	3.79	0.13	APRIL	5.28	0.18	APRIL	0	0
MAY	6.29	0.20	MAY	7.88	0.25	MAY	0	0
JUNE	8.27	0.28	JUNE	3.75	0.12	JUNE	0	0
JULY	5.97	0.19	JULY	4.2	0.14	JULY	0	0
AUGUST	7.42	0.24	AUGUST	3.75	0.12	AUGUST	1.09	0.16
SEPTEMBER	8.94	0.30	SEPTEMBER	3.64	0.12	SEPTEMBER	0	0
OCTOBER	7.10	0.23	OCTOBER	3.97	0.13	OCTOBER	0	0
NOVEMBER	10.90	0.36	NOVEMBER	3.66	0.12	NOVEMBER	0	0
DECEMBER	8.31	0.27	DECEMBER	0.35	0.01	DECEMBER	0	0
Annual Total	**78.22**	**0.21**	**Annual Total**	**55.24**	**0.15**	**Annual Total**	**1.09**	**0.013**

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Table 2.2 summarizes the historical plant flow for the TWWTP from 2016 through 2020. The percent plant capacity on a Maximum 3-month average daily flow basis varied from 35% to 65%.

Table 2.2: Historical Plant Flow TWWTP

Year	Total Annual Flow (MG)	Annual Average Daily Flow (MGD)	Average Daily Flow (3 month max.)	Permit Capacity (MGD)	Percent Capacity
2016	49	0.13	0.32	0.5	65%
2017	48	0.14	0.28	0.5	56%
2018	78	0.21	0.31	0.5	63%
2019	55.24	0.15	0.22	0.5	45%
2020	1.09**	0.16	0.16	0.5	32%

* Data for 2013 and 2014 are excluded due to start-up of the new facility.

** TWWTP was offline for the majority of 2020 due to MBR replacement

Table 2.3: NPDES EFFLUENT LIMITS (OUTLET 002) BOD5, TSS AND AMMONIA-NITROGEN

Effluent Characteristics	Monthly Average Loading Rate, lbs./day	Max Daily Loading Rate, lbs./day	Monthly Average Concentration, mg/L	Max Daily Concentration, mg/L
BOD5	42	83	10	20
TSS*	125	250	30	60
Ammonia-Nitrogen	8.3	16.7	2	4

Table 1.7: TMDL ANNUAL WASTELOAD ALLOCATIONS: NITROGEN AND PHOSPHOROUS

Effluent Characteristics	Charles Town Plant (Outfall 001)	Tuscawilla Plant (Outfall 203)	Annual Total Load Limit (Outfall 003)
Total Nitrogen	32,115 lbs.	10,740 lbs.	42,855 lbs.
Total Phosphorus	3,577 lbs.	1,790 lbs.	5,367 lbs.

Table 2.4: EFFLUENT LIMITS (OUTFALL OO2); COLIFORM, RESIDUAL CHLORINE, Ph AND D.O.

Effluent Characteristics	Maximum	Minimum
Fecal Coliform	200 Counts/100 mL (Geo. Mean) 400 Counts/100 mL (Maximum)	N/A
pH	9	6
Dissolved Oxygen (All Year)	N/A	6.0 mg/L at anytime

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Annual effluent loading limits contained in the permit were established under the Chesapeake Bay Total Maximum Daily Load (TMDL) for total nitrogen (TN) and total phosphorus (TP).

Nutrient offsets continue to enhance the City's ability to expand wastewater treatment capacity in light of the nutrient removal requirements of the Chesapeake Bay Program. Because the Tuscawilla WWTP is adjacent to the Locust Hills Golf Course, a portion of its effluent flow is utilized for course irrigation. Telemetry triggers the use of the Tuscawilla Effluent Line for direct discharge to Evitts Run (Outlet 203) when flows exceed Golf Course irrigation use.

Annual reports are submitted to WVDEP for reporting period September through August. Table 2.5 demonstrates CTUB's ability to achieve Chesapeake Bay nutrient limits:

Table 2.5: Nutrient Reporting

Year	CTWWTP Nitrogen lbs/year	CTWWTP Phosporous lbs/year	TWWTP Nitrogen lbs/year	TWWTP Nitrogen lbs/year	Total Nitrogen (Outlet 003) ***Annual Limit 42,855***	Total Phosphorous (Outlet 003) ***Annual Limit 5,367***	Golf Course Total Nitrogen (Outlet 202)	Golf Course Total Phosphorous (Outlet 202)
2016-2017	20,755	1,396	1,633	254	20,922	1,422	1,466	228
2017-2018	20,544	1,523	1,623	303	21,260	1,675	906	151
2018 - 2019	23,235	1,898	3,410	709	26,250	2,351	395	256
2019-2020	29,699	2,520	1,185	194	29,701	2,520	1,183	194

Deerfield Treatment Plant

The Deerfield Sewer Treatment Plant is located off Route 480 on Southpaw Lane between Route 9 and Shepherdstown. The facility consists of two adjacent Ashco re-circulating sand filter wastewater treatment plants, one pump station and twelve septic tanks with associated piping. The effluent from this system is distributed just below ground level into two disposal fields.

The Deerfield operates under the West Virginia Department of Environmental Protection Underground Injection Control Permit No. 1503-20-037. The current permit was renewed in December 2021 with an expiration date of 2026. The monitoring requirements are detailed in Table 3.1:

Table 3.1: DEERFIELD PERMIT MINIMUM MONITORING REQUIREMENTS

Effluent Characteristics	Measurement Frequency	Sample Type
Dissolved Oxygen	Once per 6 months	Grab
BOD, 5-day	Once per 6 months	Grab
Total Suspended Solids (TSS)	Once per 6 months	Grab
Total Nitrogen	Once per 6 months	Grab
Total Phosphorous	Once per 6 months	Grab
Flow	Once per 6 months	Grab
Fecal Coliform	Once per 6 months	Grab
pH	Once per 6 months	Grab

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Performance and Capacity of Existing Treatment Systems

Effluent results indicate that both the CTWWTP and TWWTP facilities produce effluent water quality consistently meeting the permit requirements. The effluent data demonstrates that BOD and TSS concentrations are generally below the 30-day average permit value. Average monthly effluent NH3 concentrations are also observed to be below the minimum daily maximum permit values.

Flow projections for the CTWWTP indicate expansion improvements will be necessary within the next ten years. The 2018 SSP indicated expansion of the CTWWTP to 2.25 MGD and a potential future expansion of the TWWTP Phase 2 Expansion to 1.0 MGD. Based on the growth projections in Table 1.2 and Appendix A, CTUB will begin preliminary evaluation of options for regional wastewater facility needs and expansion in 2024/2025 based on the extensive time required to design and permit a substantial plant upgrade. It is anticipated that the CTWWTP upgrade may need to be increased based on growth projections to 3.5 – 4.0 MGD.

Nutrient Management

Nutrient Management continues to be critical in the regulatory permitting and treatment of sanitary sewer. Previous versions of the SSP documented the history of the implementation of US Environmental Protection Agency (USEPA) 2010 Chesapeake Bay Watershed Initiative. As a headwater partner in the Chesapeake Bay Program, West Virginia established permitted Total Nitrogen and Total Phosphorous pounds. CTUB continues to follow changes in the regulatory requirements to determine necessary changes that may be forthcoming in the Watershed Implementation Program (WIP). CTUB is compliant with nutrient management requirements. CTUB must report nutrient removal for the annual period September 1 to August 31. Table 4.1 depicts permitted pounds and actual pounds removed for the period 2017 through current reporting.

Table 4.1: Nutrient Management

	Total Permitted Nitrogen (lbs/yr)	Total Reported (lbs/yr)		Total Permitted Phosphorous (lbs/yr)	Total Reported (lbs/yr)
2017-2018	42,855	21,260		5,367	1,675
2018-2019	42,855	26,250		5,367	2,351
2019-2020	42,855	29,701		5,367	2,520

Forecasted capacity must now also be based on nutrient limitations. In addition to volumetric capacity, nutrient limits will be a factor in determining the timing of capital projects. The ability to achieve the reported levels, as shown in Table 4.1, will eliminate the need for the CTWWTP Nutrient Removal Phase 2 Project.

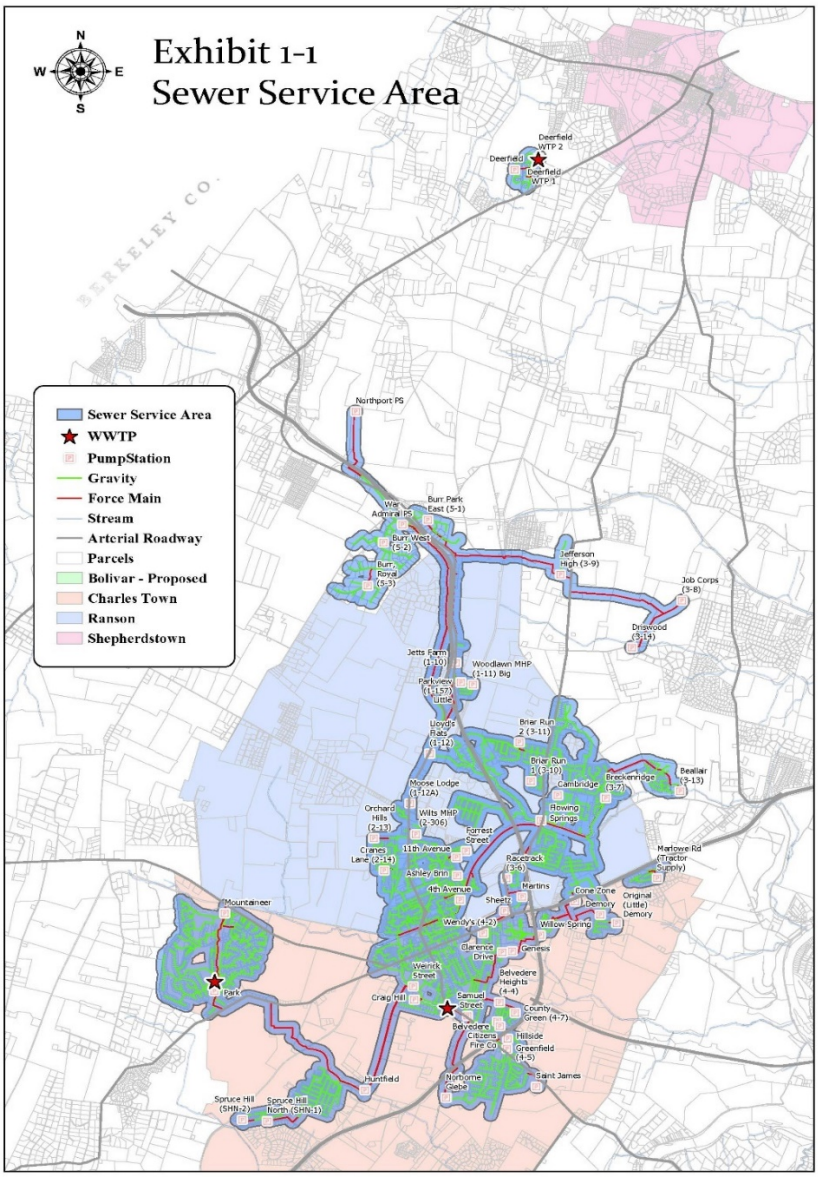
Sludge Disposal

Sludge Management is covered under the West Virginia NPDES No. WV0022349. The current permit, reissued on July 21, 2016, expires on June 30, 2021. The permit renewal application to WVDEP was submitted in December 2020 and CTUB will be working with WVDEP on the permit renewal in the first half of 2021. The permit renewal will likely incorporate provisions for alternatives to the current process for sludge disposal as the approved land application site owners may not wish to continue the partnership after the current agreement term ends in August 2022. Alternatives may include other land application sites or landfill disposal. These

alternatives and costs will be reviewed in 2021. The requirements for sludge management reporting are extensive and are covered in the permit. The Charles Town Plant currently accepts all of the waste sludge from Tuscawilla as well as the water treatment plant process waste. An upgrade to the sludge process is included with the Renewal and Replacement project. Additionally, the waste from the water treatment plant creates operational issues at the Charles Town Plant. Alternative disposal methods will be considered in 2021.

COLLECTION SYSTEM, TRANSMISSION MAINS AND PUMP STATIONS

CTUB provides wastewater service to over 8,000 sewer customers through a network of collection and transmission systems through over 125 miles (over 100 miles of gravity and over 25 miles of force main) and 47 pump stations to the three (3) treatment facilities noted in the previous section. Refer to Exhibit 1-1 and Appendix B for the current collection system service area and pump station locations. The service has been expanded to include the Route 9 Sewer Project from the latest SSP. This area extends up Route 9 towards Martinsburg approximately 3 miles from previous service boundary. It should be noted that the Utility can serve areas up to 20 miles of the treatment location pursuant to the WVPSC Rules.



Collection System and Pumping Stations



The collection system includes gravity and force mains that range from 1.5 to 24 inches in diameter. The collection system comprises of varying pipe materials including asbestos-cement, clay, ductile, cast and PVC piping. There are significant portions of the collection system that are aging and will likely need of repairs or replacement. A sewer hydraulic model was completed in January 2021 that identified several portions of the conveyance system that may need to be addressed due to capacity concerns. Specifically, the study identified capacity concerns along the Evitt's Run interceptor as well as the gravity line through Jefferson Memorial Park. Additionally, studies have focused on manholes structures throughout the system that need to be repaired or replaced in the near future. To the extent possible these will be achieved within the annual operation and maintenance budgets. CTUB will continue to perform flow monitoring throughout the system to assess capacity constraints.

Pump stations and force mains are used to pump flows to another gravity collection system, to a master pump station or directly to the wastewater treatment facilities. There are 47 pump stations in the CTUB system. As a result of utility consolidation, efficiencies have been realized that allow for the installation of gravity sewer mains and decommissioning of pump stations. Where possible, the efficiencies will be pursued to reduce overall operation and maintenance expenses. To the extent possible these projects may be performed in-house to reduce overall project costs. Since 2019, two pump stations have been decommissioned resulting in significant operation and maintenance expenses. In the next two years, CTUB expects to decommission another four (4) pump stations with construction of gravity lines.

Fats, Oils and Grease

Overflows and sewer backups are commonly caused by fats, oil and grease (FOG). FOG gets into the sewer from household drains and neglected grease interceptors at businesses and restaurants. The FOG blocks sewer pipes, causing health hazards and leading to expensive fixes. CTUB will focus on community education to reduce the damage to the utility sewer system.

Inflow and Infiltration

Inflow occurs when stormwater flows directly into the sewer collection system. This may be through a manhole cover, or a cross connection between a storm drain and the sewer collection system. Infiltration is typically caused by ground water entering the collection system at defects in mains, laterals or manholes. CTUB has initiated efforts to evaluate I&I in the combined system with a most recent study completed in 2019. Staff is working on completing all recommendations in the Condition Assessment Report which included repairs to laterals, mains and manholes to address I&I. Another component that remains to be addressed is disconnection of any cross connections of storm drains to the sewer system which are considered illegal connections. CTUB is working with the City of Charles Town to determine the appropriate enforcement actions to remove the illegal connections from the sewer system.

PROJECT REVIEW

Completed Projects

Since the last issuance of the SSP, significant improvements have been made throughout the treatment and collection system. Necessary upgrades and improvements to the CTWWTP and TWWTP were completed to address WVDEP Inspection requirements as well as operation and maintenance improvements to the collection and pump station network have been made as a result of consolidation into a regional utility. These improvements include elimination of pump stations through installation of gravity lines which reduce operation and maintenance expenses as well as projects that address rehabilitation of aging pump stations and lines to further reduce utility expenses.

Table 5.1: Projects Completed since 2018 SSP

Year	Project Description
2018	CTWWTP Basin Lining
2018	New Gorman Rupp pump installation at Park Pump Station
2019	New Pump installation at Flowing Springs Pump Station
2019	Smoke Testing Efforts completed, including xx linear feet of sewer mains, xx manholes, xx cleanouts.
2019	Orchard Hills Pump Station rehabilitation
2019	Cranes Lane Pump Station rehabilitation
2020	Route 9 Sewer Project Completed. Including two pump stations, 9,400 linear feet of gravity line and 16,000 linear feet of forcemain.
2020	Decommissioning of Euclid Pump Station
2020	Decommissioning of Parkview MHP Pump Station
2020	Installation of MBR Filters in Basin #3 at Tuscawilla Plant

It should be noted that with the completion of the Route 9 Sewer Project noted in Table 5.1, as well as the consolidation of utilities, a project to divert flows from the northern region into the Route 9 sewer line can be completed which will allow for additional capacity in other portions of the sewer system. This project is detailed in the *Current Development and Projects* section herein.

Additionally, as noted above CTUB has completed a first phase of a hydraulic wastewater model through RK&K. This model includes the larger diameter portions of the collection system along with all of the pump stations. Hydraulic models are generally used to assist with identification of areas where additional capacity is needed to convey projected long-term flows to the treatment facilities. As this hydraulic model was recently completed at the end of 2020, CTUB staff will be evaluating the results of this model over the next several months to identify additional capital improvements needed for the collection system likely after adoption of this SSP.

Current Development and Projects

There are numerous on-going sewer projects that CTUB is evaluating:

Inflow and Infiltration Studies

CTUB has completed a first phase of Inflow and Infiltration (I&I) investigation, through smoke testing, in selected areas of the collection system. The study which was conducted by Hydrostructures in 2019 identified numerous defects in the sewer system that needed to be repaired or investigated further. CTUB is nearly 95% complete with these efforts and will likely focus on other aging segments of the system to conduct similar studies with the goal of reducing I&I.

Sewer Modeling Efforts

CTUB completed an initial step in sewer modeling efforts late in 2020 that considered the larger portions of the system along with the pump stations. The model will be evaluated to determine where bottlenecks and capacity issues may exist in the system.

Shenandoah Junction Public Sewer Corporation

This private sewer corporation has expressed interest to connect to the CTUB system. This request will require payment of CIF's to CTUB, decommissioning of the existing wastewater plant and construction of a pump station by SJPS. The connection of 187 customers has been evaluated and the connection can be made with no modification of the existing CTUB system.

Cave Quarter Estates Utility Acquisition and Development Expansion

CTUB has evaluated route alternatives and cost for extending service to Cave Quarter Estates that includes 45 existing homes and 140 proposed single-family homes. While this development has not been annexed into the City of Charles Town, this land is in the Charles Town Growth Boundary. Connection to public water and sewer could be viable with the extension of services to and through adjacent annexed parcels.

2021 Collection System Project (formerly JCPSD Flowing Springs Project/Modified Flowing Springs Plan)

On March 23, 2017, the WV PSC issued an Order in CASE NO. 16-0616-PSD-PC-CN wherein the Commission granted the application for a certificate of convenience and necessity and approved a Post-Project rate increase. Funding for the Project consisted of (i) a $3,575,000 USDA RD loan at a 2.5 percent interest rate over 40 years. And (ii) a DEP SRF loan of $2,844,984 at .25 percent interest, and a .25 percent administrative fee for a term up to 40 years, and debt forgiveness in the amount of $500,000 per the January 17, 2017 DEP assurance letter. During the consolidation of utilities, CTUB committed to the WV PSC completing necessary components of the Flowing Springs project through submission of a Modified Flowing Springs Plan in March 2018. Since the utility consolidation and completion of the Route 9 sewer project, CTUB has evaluated efficiencies and operational alternatives to significantly reduce components and costs of the Modified Flowing Springs Plan. The Flowing Springs Project and Modified Flowing Springs plan have evolved into a 2021 Collection System projects which consists of necessary improvements to the CTUB collection system. The Route 9 Sewer Project is now complete to serve the Rockwool Facility, adjacent Jefferson Orchards property and customers along the Route 9 corridor has been completed and flows are online. The construction of this project allows for diversion of flows from northeastern region to the new Route 9 sewer infrastructure thereby freeing up capacity in other segments of the system for future customers. Table 5.2 includes a summary of the anticipated components and costs of this project.

Forrest Avenue Pump Station Relocation and Fairfax Crossing Parallel Gravity Project

As part of the acquisition of the City of Ranson Sewer System in July 2018, some preliminary evaluation of collection system improvements were anticipated to include approximately $2 million in projects. One of the projects included the relocation of the existing Forrest Avenue Pump station along with provisions for future capacity for areas within the sewer shed that could flow to the pump station. Additionally, as a result of the

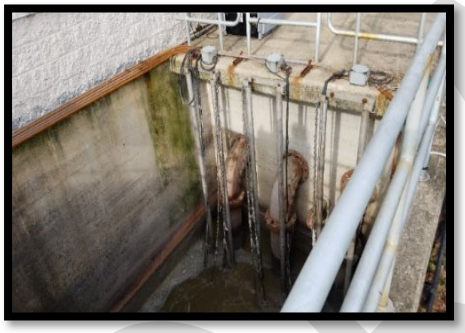
Route 9 Sewer project alignment easement acquisition through the Fairfax Crossing/Potomac Marketplace, CTUB committed to the installation of a parallel 10" gravity line from the railroad track bordering the western boundary of Fairfax Crossing to Route 9. This will include the installation of approximately 2,600 linear feet of 10" gravity line. Table 5.2 includes a summary of the anticipate components and costs of this project.

2021 Renewal and Replacement Project for CTWWTP and TWWTP

In 2019 Gwin, Dobson and Foreman (GDF) prepared an assessment of the CTWWTP and TWWTP facilities which indicated several opportunities for optimization and improvement as follows:

- Headworks screening at both plants are in need of upgrades. Operations at the Charles Town Plant are severely hindered by poor headworks screening and the previous operation of a grinder ahead of the screen. Fine and stringy material is passing through the headworks screen which leads to debris accumulation downstream and is causing havoc on the treatment units. Given the age and current operating condition of the grit system at Charles Town, a new grit removal facility should be considered. The Tuscawilla Plant requires improved fine screening equipment due to current screening operational and maintenance issues.





- The influent and effluent pump stations as well as the UV disinfection system at the Charles Town Plant are in need of replacement, as the units have reached the end of useful life.
- The membrane modules at the Tuscawilla Facility are in need of replacement due to excessive sludge buildup and irreversible fouling. It is recommended to implement a membrane module and hose replacement program along with enhanced cleaning operations and process adjustments to maximize membrane life and lower the operating transmembrane pressure (TMP).





- The Charles Town Plant currently accepts all of the waste sludge from Tuscawilla as well as the water treatment plant process waste. There is no backup for the sludge pump or belt filter press at the plant. A redundant dewatering system should be considered in the short term to ensure sludge produced by any of the facilities may continue to be processed during shut down or failure of the sludge pump or belt press. Additionally, the waste from the water treatment plant creates operational issues at the Charles Town Plant. Alternative disposal methods should be considered.
- Both facilities require significant SCADA system modifications to improve the treatment process along with additional online instrumentation devices which will aid in plant optimization.

Table 5.2 below illustrates the anticipated costs associated with the 2021 projects:

Table 5.2: 2021 Projects Summary	
Route 9- Northern Region Improvements	
DESCRIPTION	TOTAL COST
RK&K Task 7 Parkview MHP Pump Station Decommission	To be completed in-house
RK&K Task 7 Jett's Farm Option 2: PS and FM Modifications	$362,300.00
RK&K Task 7 Lloyd's Flat Pump Station Decommission	To be completed in-house
RK&K Task 7 Moose Lodge Option 2: Forcemain and PS Mod.	$194,200.00
RK&K Task 4 Northern/Burr Flow Diversion	$580,600.00
Upgrade Existing Ranson FS PS	$300,000.00
Route 9 - Northern Region Improvements Total	$1,437,100.00
Eastern Region Improvements	
Upgrades to Existing Pump Station 3-6	To be completed in-house
Upgrades to Existing Pump Station 4-2	To be completed in-house
Miscellaneous Improvements	
RK&K Task 10 Jefferson Memorial Park forcemain	$200,000.00
Miscellaneous Improvements Sub-Total	$200,000.00
Construction Sub-Total	$1,637,100.00
Contingency (±10%)	$163,710.00
TOTAL CONSTRUCTION COST	$1,800,810.00
PROFESSIONAL FEES - Engineering, Accounting, Legal, etc.	$500,000.00
TOTAL COLLECTION PROJECT COST	$2,300,810.00

Ranson Projects	
DESCRIPTION	TOTAL COST
Fairfax Crossing parallel 10" gravity line	$650,000.00
Forrest Avenue Pump station relocation/Fairfax Crossing	$615,000.00
Construction Sub-Total	$1,265,000.00
Contingency and Professional Fees (30%)	$379,500.00
TOTAL RANSON PROJECT COST	$1,644,500.00

Renewal and Replacement Project	
DESCRIPTION	TOTAL COST
CTWWTP	$3,000,000.00
TWWTP	$1,063,820.00
TOTAL RENEWAL AND REPLACEMENT PROJECT COST	$4,063,820.00

TOTAL ALL PROJECTS	**$8,009,130.00**

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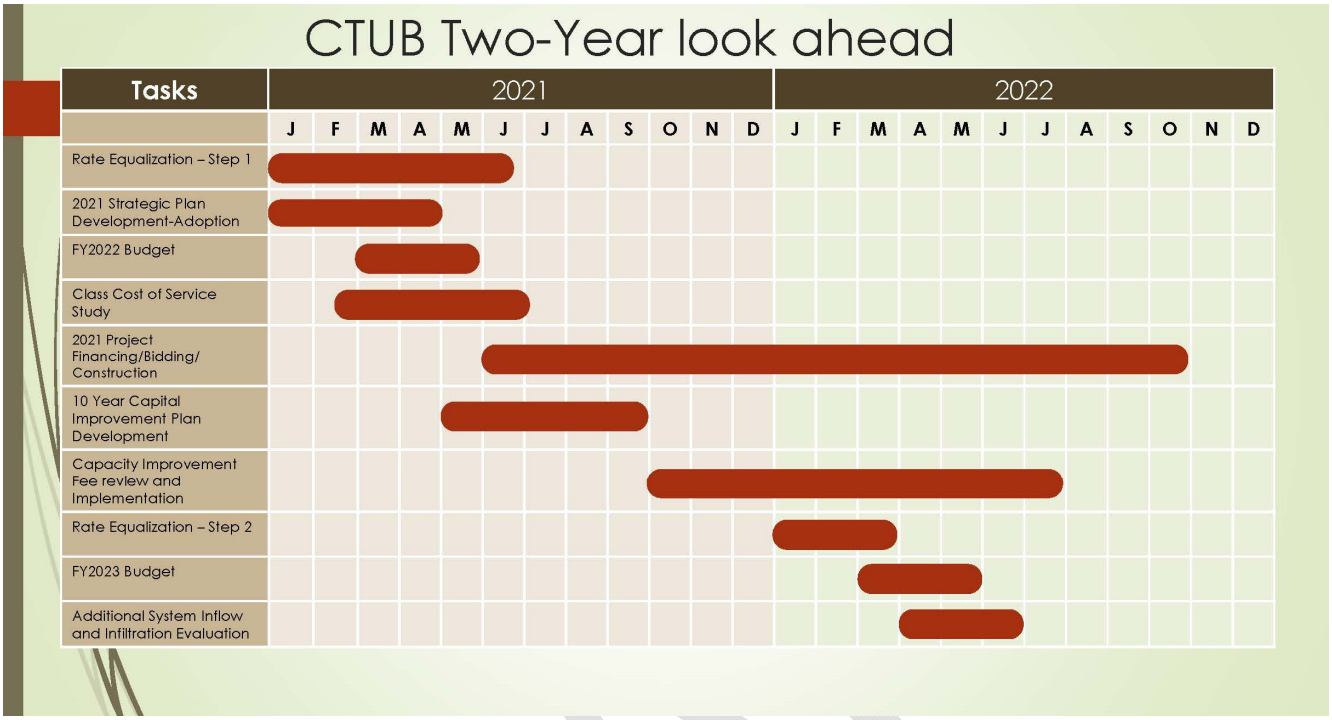
Project Schedule

A forecast of anticipated timeframes for completion of projects noted in the SSP are detailed in the diagram below:



This look-ahead is a forecast of anticipated top level strategic efforts. There are many factors that could affect this timeline.

Future Projects

As part of the consolidation into a regional utility in 2019, CTUB has initiated various efforts that will likely result in future projects that have not been formally vetted to date. As discussed in this SSP, the recent completion of a hydraulic wastewater model may result in additional capital projects for the collection and transmission system. The development of a 10-year Capital Improvement Plan (CIP) Expenditure Plan in conjunction with the evaluation of capacity improvement fees will provide a structure for the completion of these projects. The CIP will prioritize planning projects that are needed as a result of the following factors:

- Regulatory Compliance
- Condition/Probability of Failure
- Consequences of Failure/Risk
- Capacity / System Operational Efficiencies
- Improved Operations and Maintenance costs
- Safety
- Design Life / Best Replacement Practices
- Redundancy / Reliability
- Opportunity Projects
- Development Extensions

The CTUB Asset Management Plan will be updated to assist with the development and maintenance of a CIP.

CTWWTP Plant Expansion

Expansion of the CTWWTP is expected within the next 10 years based on the historical flow data in Table 1.4 as well as the development projections detailed in Table 1.2. Design efforts should be initiated in 2024/2025. In advance of the plant expansion, Gwin, Dobson and Foreman may be engaged to provide recommendations that may provide optimization enhancements to extend the service life of the existing facility, enhance process operations, provide additional capacity and improve treatment efficiencies. These targeted, cost-effective improvements may result in a more robust and reliable process for meeting regulatory standards until such time that a larger and more centralized treatment plant is constructed to meet planning period demands.

There are various factors that need to be evaluated with an expansion of the CTWWTP including location, size, type of facility and environmental protection. An expansion from 1.75 MGD to 3.5/4.0 MGD is estimated to cost between $15 million and $20 million in today's dollars. Every effort will be made to provide the most cost effective design to minimize any burden to ratepayers.

RATE EQUALIZATION, FUNDING AND FINANCIAL OPTIONS

Rate Equalization

During the consolidation of utilities, the City of Charles Town agreed to exercise its best efforts to equalize the rates and charges for water service of all water and sewer customers within 10 years after the closing date. To fulfill this obligation, CTUB and the Charles Town City Council will be working on strategies to initiate a stepped approach to rate equalization within the 1st quarter of 2021.

Rate equalization has an impact on each and every CTUB sewer customer. An added complexity is the equalization of three different utility rates and one having a significantly different rate structure (JCPSD single tier). The Charles Town and City of Ranson rate structures follow the tiered rate approach consistent with the WVPSC Commodity-Demand method which most water and sewer utilities follow in West Virginia. The Commodity-Demand method makes significant use of peak demand factors by customer class and isolates costs that are purely volume related and customer driven. Demand factors are significantly different for customer classes (i.e., residential, commercial). Peaking factors generally significantly decline when comparing the residential class to the commercial and other classes. This approach is the WVPSC recommended, most conventional and fairest for systems with multiple and material customer classes. The importance of this discussion on tiering is that the most practical and needed approach to rate equalization will be to transition the JCPSD single tier structure in a stepped manner to the multiple tiered structures of the City of Charles Town and City of Ranson. In addition to the recommendations below, CTUB staff and its financial advisors recommend maintaining a minimum debt/service coverage ratio of 130% for the combined utility moving forward.

As part of the rate equalization process CTUB intends to authorize the completion of a Class Cost of Service study which will identify the most appropriate rate structure and rate equality between the customer classes. This should be completed shortly after adoption of this SSP.

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Funding and Financial Planning

In addition to the rate equalization discussion, CTUB will be working with the Mayor and City Council on funding options for the projects discussed in this SSP:

- 2021 Renewal/Replacement Project
- 2021 Collection System Projects
- Forrest Avenue Pump Station relocation and Fairfax Crossing Parallel Gravity project

CTUB continues to pursue a strategy for funding upgrades and expansion in a manner that will minimize the burden to the current and future ratepayers. CTUB intends to fund the costs for the above projects through conventional rate impacts, payment of prior bonds and Capacity Improvement Fees. The development of a capital improvement plan will identify future capital purchases that are necessary for the operation of the sewer system.

Future CTWWTP expansion is expected to be necessary within the next 10 years. This will require a significant capital outlay and funding strategy in a future SSP and project discussion. It is anticipated that plant expansion could range from $15 to $20 million.

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APPENDIX A – GROWTH PROJECTIONS

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Appendix A - CTUB Sewer Strategic Plan 2021-2024 Development Forecast																											
Development	Total Design EDUs	Total Built as of 2021	20 year forecast to be built	Total Flow	Beyond 20 year forecast	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	Year 18 2038	Year 19 2039	Year 20 2040	Years 11-20 2031-2040	TOTAL @ Year 20	TOTAL REMAINING
American Heritage (Huntwell)	500	0	500	75,000	200	0	0	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0	0	160	300	200
Aspen Green	203	46	157	30,450	0	20	20	20	20	20	20	20	17	0	0	0	0	0	0	0	0	0	0	0	0	157	0
Beallair	372	112	260	55,800	0	20	20	20	20	20	20	20	20	20	20	20	20	20	0	0	0	0	0	0	60	260	0
Blackford Village	338	0	338	50,700	0	0	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	18	0	178	338	0
Breckenridge East	300	0	300	45,000	100	0	0	0	0	0	0	0	0	0	0	20	20	20	20	20	20	20	20	20	200	200	100
Briar Run	131	122	9	19,650	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
Burr Industrial Park & Bardane	200	170	30	30,000	0	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	30	0
Cambridge	134	85	49	20,100	0	5	5	0	0	0	0	0	0	0	0	5	5	5	5	5	5	5	4	0	0	39	49	0
Charles Town Infill	250	0	250	37,500	150	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	50	100	150
Clayhill Farm	300	0	300	45,000	20	0	0	0	0	0	20	20	20	20	20	20	20	20	20	20	20	20	20	0	180	280	20
Daniels Forest	192	0	192	28,800	0	0	0	0	0	0	20	20	20	20	20	20	20	20	20	12	0	0	0	0	92	192	0
Fritts Property	370	0	370	55,500	50	0	0	0	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	200	320	50
Harvest Hills	392	6	386	58,800	166	0	0	0	0	0	0	0	0	0	20	20	20	20	20	20	20	20	20	20	200	220	166
Huntfield	3,200	421	2,779	480,000	2,459	0	0	0	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	200	320	2459
Jefferson Heights North	262	0	262	39,300	122	0	0	20	20	15	15	15	15	15	15	10	0	0	0	0	0	0	0	0	10	140	0
Tate Manor	80	0	80	12,000	0	20	20	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	0
Lakeland Place / Lloyd's	600	0	600	90,000	220	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	200	380	220
Jefferson Orchards	888	0	888	133,200	688	0	0	0	0	0	0	0	0	0	0	20	20	20	20	20	20	20	20	20	200	200	688
Langlet	1,000	0	1,000	150,000	800	0	0	0	0	0	0	0	0	0	0	20	20	20	20	20	20	20	20	20	200	200	800
Lloyd Property	500	0	500	75,000	300	0	0	0	0	0	0	0	0	0	0	20	20	20	20	20	20	20	20	20	200	200	300
Locust Knoll	359	0	359	53,850	59	0	0	0	0	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	200	300	59
Magnolia Springs	300	0	300	45,000	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0	0	0	0	100	300	0
Norborne Glebe	1,050	246	804	157,500	484	0	0	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0	180	320	484
Old Town Ranson - Infill	250	0	250	37,500	150	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	50	100	150
Potomac Marketplace	54	0	54	8,100	0	0	5	5	5	5	5	5	5	5	5	5	4	0	0	0	0	0	0	0	9	54	0
President's Pointe	1,100	77	1,023	165,000	0	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	73	523	1,023	0
Prospect Place	170	0	170	25,500	0	0	0	0	0	9	9	25	25	25	25	25	27	0	0	0	0	0	0	0	52	170	0
Ranson Gateway / Boulevard	1,175	0	1,175	176,250	835	0	0	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	200	340	835
Shenandoah Springs	705	259	446	105,750	46	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	200	400	46
Stolipher	324	0	324	48,600	124	0	0	0	0	0	0	0	0	0	0	20	20	20	20	20	20	20	20	20	200	200	124
Washington Landing	274	0	274	41,100	0	0	0	0	50	50	50	50	50	24	0	0	0	0	0	0	0	0	0	0	0	274	0
Winchester Cold Storage	675	0	675	101,250	125	0	0	0	0	0	0	0	0	0	50	50	50	50	50	50	50	50	50	50	500	550	125
Windmill Crossing	150	146	4	22,500	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Total Projected Development	**7,086**	**728**	**6,358**	**1,062,900**	**2,123**	**96**	**101**	**101**	**191**	**199**	**219**	**235**	**235**	**209**	**235**	**275**	**276**	**245**	**245**	**245**	**225**	**225**	**225**	**225**	**228**	**0**	**4,235**	**2,123**

APPENDIX B – EXISTING SERVICE AREA

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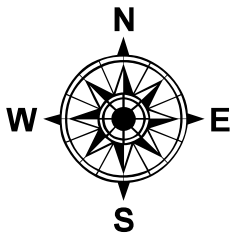
Exhibit 1-1
Sewer Service Area



VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
	PAVING: 1/12/21	WATER FUND	WATER		1,755.00
	PAVING: 1/13/21	WATER FUND	WATER		720.00
	PAVING: 1/13/21	WATER FUND	WATER		1,365.00
	PAVING: 1/12/21	SEWER FUND	SEWER		1,980.00
	PAVING: 1/12/21	SEWER FUND	SEWER		4,404.00
	PAVING: 1/13/21	SEWER FUND	SEWER		5,376.00
	PAVING: 1/13/21	SEWER FUND	SEWER		1,500.00
				TOTAL:	27,075.00
USA BLUEBOOK	METER IDLER	WATER FUND	WATER		151.16
	BLUE-WHITE TUBE ASSEMBLY	WATER FUND	WATER		53.73
	REDINGTON 2-HOLE RECT HR M	SEWER FUND	SEWER		125.59
	REDINGTON 2-HOLE RECT	SEWER FUND	SEWER		89.85
				TOTAL:	420.33
VALLEY CREDIT SERVICE, INC.	JAN COLLECTIONS	WATER FUND	WATER		590.90
	PSD JAN COLLECTIONS	SEWER FUND	SEWER		83.00
	JAN COLLECTIONS	SEWER FUND	SEWER		590.89
				TOTAL:	1,264.79
XYLEM WATER SOLUTIONS U.S.A., INC.	CHECK VALVE, GASKET	SEWER FUND	SEWER		640.32
				TOTAL:	640.32

FUND TOTALS	
50 WATER FUND	56,409.19
60 SEWER FUND	300,344.54
GRAND TOTAL:	356,753.73

TOTAL PAGES: 4

APPROVED BY: _____

APPROVED BY: _____

Note:

Highlighted invoices to be reimbursed by the Route 9 Sewer Project Escrow Account;

Highlighted invoices to be reimbursed for the Tuscawilla MBR Project - Basin #3;

Highlighted invoices to be reimbursed for the R&R Project

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT	AMOUNT
POTOMAC EDISON	110 146 659 310	SEWER FUND	SEWER	272.65
			TOTAL:	272.65
QUALITY FENCE & DECK CO	CLARENCE AVE GATE HINGES	SEWER FUND	SEWER	1,200.00
			TOTAL:	1,200.00
RK & K ENGINEERS	TO5 SEWER MODEL	SEWER FUND	NON-DEPARTMENTAL	951.14
	TO13 DECOMM BELVEDERE PS	SEWER FUND	NON-DEPARTMENTAL	804.33
	TO16 LLYOD'S FLAT& MOOSE L	SEWER FUND	NON-DEPARTMENTAL	1,409.67
	TO14 MNHLEVAL@EVITTS/BRWNV	SEWER FUND	SEWER	415.80
			TOTAL:	3,580.94
ROSS H BARE	SHN SVC CALL	SEWER FUND	SEWER	650.00
	BRCKNRDG& LLYODFLATS SVC C	SEWER FUND	SEWER	2,584.90
			TOTAL:	3,234.90
SHADE EQUIPMENT COMPANY, INC.	HAIRPINCOTTER,FLUID,RCVRPI	WATER FUND	WATER	36.00
	STANDASSMBLY,BLDGUID,FLGAS	WATER FUND	WATER	371.00
			TOTAL:	407.00
SHENANDOAH SALES & SERVICE, INC.	2012 CHEVY 3500	WATER FUND	WATER	14.00
	2011 FORD F-150	SEWER FUND	SEWER	838.14
	2000 ATLAS	SEWER FUND	SEWER	139.99
	2000 ATLAS	SEWER FUND	SEWER	1,242.12
			TOTAL:	2,234.25
SNYDER ENVIRONMENTAL SERVICES, INC	CNTCTR AP#12 RT9 PRJCT	SEWER FUND	NON-DEPARTMENTAL	149,306.93
			TOTAL:	149,306.93
GERALD TAYLOR CO., INC.	PUMP / TRANSPORT	WATER FUND	WATER	732.25
	PUMP / TRANSPORT	WATER FUND	WATER	303.00
	VAC TRUCK WWTP	SEWER FUND	SEWER	168.67
	SLUDGE TRANSPORTED	SEWER FUND	SEWER	5,208.00
			TOTAL:	6,411.92
THE CI THORNBURG CO, INC.	DUAL PORT WIRED TRANSCEIVE	WATER FUND	WATER	1,650.00-
	CHLORINE	WATER FUND	WATER	903.00
	6" OMNI	WATER FUND	WATER	4,450.00
	MICROLOGIX ANALOG 4 INPUT	WATER FUND	WATER	1,111.57
			TOTAL:	4,814.57
TIAA COMMERCIAL FINANCE, INC	PLOTTER	WATER FUND	NON-DEPARTMENTAL	2,340.00
			TOTAL:	2,340.00
TYLER TECHNOLOGIES	UB- BILLING- S.JOHNSON	WATER FUND	WATER	150.00
	UB- BILLING- S.JOHNSON	SEWER FUND	SEWER	150.00
			TOTAL:	300.00
US PAVING, LLC	PAVING: 1/7/21	WATER FUND	WATER	1,260.00
	PAVING: 1/7/21	WATER FUND	WATER	1,350.00
	PAVING: 1/7/21	WATER FUND	WATER	3,240.00
	PAVING: 1/7/21	WATER FUND	WATER	540.00
	PAVING: 1/7/21	WATER FUND	WATER	525.00
	PAVING: 1/7/21	WATER FUND	WATER	600.00
	PAVING: 1/7/21	WATER FUND	WATER	720.00
	PAVING: 1/7/21	WATER FUND	WATER	1,740.00

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT	AMOUNT
	W/E 2/14/21	SEWER FUND	SEWER	764.04
	W/E 2/07/21	SEWER FUND	SEWER	514.38
			TOTAL:	2,048.09
GWIN DOBSON & FOREMAN INC	WTP-DISINFECTN BYPRDCT EVA	WATER FUND	NON-DEPARTMENTAL	5,820.20
	TUSC WWTP MBRN BIORCTR RPL	SEWER FUND	NON-DEPARTMENTAL	1,423.99
	WWTP UPGRADE	SEWER FUND	NON-DEPARTMENTAL	36,175.41
			TOTAL:	43,419.60
HATCH ASSOCIATES CONSULTANTS, INC.	TO4 H-359787 RT 9 PRJCT	SEWER FUND	NON-DEPARTMENTAL	20,311.75
	TO11 H-364168 CNNCTCNS MAG	SEWER FUND	SEWER	8,541.00
			TOTAL:	28,852.75
INDUSTRIAL CHEM LABS, INC	DEGREASER	SEWER FUND	SEWER	297.96
			TOTAL:	297.96
INTELLIPOINT TECHNOLOGIES, LLC	IT-REGULAR-REMOTE	WATER FUND	WATER	250.00
			TOTAL:	250.00
INWOOD QUARRY, INC.	C2 PICKUPS: 2/12/21	WATER FUND	WATER	504.24
			TOTAL:	504.24
JAMES RIVER EQUIPMENT	EQUIPMENT RENTAL	SEWER FUND	SEWER	3,200.00
			TOTAL:	3,200.00
JEFFERSON UTILITIES, INC	12-0820-00	SEWER FUND	SEWER	135.36
	12-0820-00	SEWER FUND	SEWER	45.12
			TOTAL:	180.48
JOHN P PLACE, INC.	CHECK VALVES	SEWER FUND	SEWER	2,070.10
	SUPPLIES	SEWER FUND	SEWER	643.48
			TOTAL:	2,713.58
J.C. KUNKLE & ASSOCIATES, A.C.	PROFF SVCS 12/1/20 - 2/10/	SEWER FUND	SEWER	10,133.75
			TOTAL:	10,133.75
MASTERDRY, LLC	110 N LAWRENCE ST DAMAGE	SEWER FUND	SEWER	5,478.10
			TOTAL:	5,478.10
MCKINNEY'S AUTO REPAIR	OIL CHANGE CHEVY COLORADO	WATER FUND	WATER	88.47
	WV INSPECTION 2017 F-150	SEWER FUND	SEWER	14.00
			TOTAL:	102.47
MISS UTILITY OF WV, INC.	MESSAGE FEES: JAN	WATER FUND	WATER	105.00
			TOTAL:	105.00
LOGICAL CONCEPTS, INC	MONITORING LIFT& PUMP STAT	SEWER FUND	SEWER	8.93
			TOTAL:	8.93
PACE ANALYTICAL SERVICES, LLC	TESTING: WTP QUARTERLY	WATER FUND	WATER	703.00
	TESTING: CT WEEKLY	SEWER FUND	SEWER	193.30
	TESTING: CT WEEKLY	SEWER FUND	SEWER	147.95
	TESTING: TUSC QUARTERLY	SEWER FUND	SEWER	303.11
	TESTING: CT WEEKLY	SEWER FUND	SEWER	229.30
			TOTAL:	1,576.66

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT	AMOUNT
AUTOZONE	OIL & FILTER	WATER FUND	WATER	113.02
			TOTAL:	113.02
BIEDLER'S ELECTRIC MOTOR REPAIR, INC.	DEERFIELD PUMPS	SEWER FUND	SEWER	4,059.52
			TOTAL:	4,059.52
CEDARCHEM, LLC	2,000G CEDARCLEAR 1757	WATER FUND	WATER	8,801.94
			TOTAL:	8,801.94
CHARLES TOWN SEWER	JANUARY FUNDING	SEWER FUND	NON-DEPARTMENTAL	12,207.75
			TOTAL:	12,207.75
CHARLES TOWN WATER	JANUARY FUNDING	WATER FUND	NON-DEPARTMENTAL	9,255.19
			TOTAL:	9,255.19
CHS TRAFFIC CONTROL SERVICES, INC.	N WASHINGTON ST: 2/04/21	WATER FUND	WATER	1,000.00
			TOTAL:	1,000.00
CITIBANK, N.A.	JUDGEMENT	WATER FUND	NON-DEPARTMENTAL	1,270.86
			TOTAL:	1,270.86
CLAUDE CYR	REIMBURSE INV# 23	SEWER FUND	SEWER	461.00
	REIMBURSE INV# 24	SEWER FUND	SEWER	516.00
			TOTAL:	977.00
COYNE CHEMICAL	CP-837,HYDROFLUOSILICIC AC	WATER FUND	WATER	3,795.01
	ZETAG 8868FS	SEWER FUND	SEWER	6,454.23
			TOTAL:	10,249.24
CUMMINS, INC	BEALLAIR ESTATES: INSPECTI	SEWER FUND	SEWER	179.00
	BELVEDERE HEIGHTS: INSPECT	SEWER FUND	SEWER	145.50
	BURR OFFICE PARK: INSPECTI	SEWER FUND	SEWER	194.75
	COUNTY GREEN: INSPECTION	SEWER FUND	SEWER	194.00
			TOTAL:	713.25
DENNIS SALES & SERVICE, INC	A3 SERIES PUMP HEAD COVER	WATER FUND	WATER	116.25
			TOTAL:	116.25
WV DEPT OF HEALTH & HUMAN SERVICES	FLOURIDE TEST	WATER FUND	WATER	15.00
	BACTERIOLOGICAL TESTING	WATER FUND	WATER	100.00
	BACTERIOLOGICAL TESTING	WATER FUND	WATER	120.00
	BACTERIOLOGICAL TESTING	WATER FUND	WATER	20.00
			TOTAL:	255.00
DOOR TECH	TUSC WWTP ALUMNM DOOR	SEWER FUND	SEWER	3,515.00
			TOTAL:	3,515.00
FASTENAL	MANHOLE REPAIR HARDWARE	SEWER FUND	SEWER	1,654.77
			TOTAL:	1,654.77
FRONTIER COMMUNICATIONS	304-876-9970-121914-4	WATER FUND	WATER	94.53
	304-876-2120-111514-4	WATER FUND	WATER	95.20
			TOTAL:	189.73
GUTTMAN ENERGY	W/E 2/14/21	WATER FUND	WATER	592.80
	W/E 2/07/21	WATER FUND	WATER	176.87