CHARLES TOWN UTILITY BOARD
AGENDA

WEDNESDAY, JULY 28, 2021

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

CALL TO ORDER

1. **APPROVAL OF MINUTES**
   a. Approval of July 14, 2021 Regular Meeting Minutes
   2021.07.14 UB MINUTES.pdf

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

   The public is invited to attend this meeting via webcast (www.ctubwv.com - Board Meetings - Meeting Agendas and Minutes 2021) or may attend the meeting by accessing the following zoom link:

   https://us06web.zoom.us/j/82275909745?pwd=VFVTRnZ6ckxzRHBYLzRrZVlSaDYwdz09

   Meeting ID: 822 7590 9745
   Passcode: 017130

   or call (301) 715-8592

3. **UNFINISHED BUSINESS**

4. **NEW BUSINESS**
   a. GDF Project updates
   July28_2021_Engineers_Report.pdf
   b. WV PSC Case 21-0260-S-P Shenandoah Junction Public Sewer Review - Possible Executive Session Under: WV State Code Section §6-9A-4(b)(9) - To consider matters involving or affecting the purchase, sale or lease of property, advance construction planning, the investment of public funds or other matters involving commercial competition, which if made public, might adversely affect the financial or other interest of the state or any political subdivision and involving contract matters.

SJPS Evaluation - July 2021.pdf

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

6. **APPROVAL OF BILLS**
   a. July 28, 2021
      Board Report 7.28.21.pdf

7. **ADJOURNMENT**

8. **INFORMATION ONLY**
   a. Next Meeting - August 11, 2021

July 14, 2021

The Charles Town Utility Board held a meeting on July 14, 2021 at 4:00 p.m. Members of the Board present were Daryl Hennessy, Pete Kubic, Tommy Stocks and Jacquelyn Milliron. Also present were Kristen Stolipher, April Shultz, Hoy Shingleton, Commissioner Caleb Hudson and Ashley Stottlemyer. The Chairman called for changes or corrections to the June 23, 2021 regular meeting minutes. Jacquelyn suggested changes. The Board approved the minutes as amended. The Board received a public comment from Jane Zinstein.

The Chairman next opened the floor for discussion on the GDF General Project Overview – Water and Sewer. Chris Eckenrode, from GDF, provided a brief overview on the water treatment projects he is currently working on, including a water strategic plan and test well drilling. On the sewer side, Chris is working on a number of projects including the Tuscawilla plant, Shenandoah Junction Public Sewer evaluation, R & R Improvement project and sludge handling pilot study.

Next discussed was the GDF Geophysical Exploration Report. Chris briefed the Board on this report. The next step, Phase 3, is to work with the property owners of the two proposed sites to see if they are interested in having a test well drilled on their property. Chris will come back to the Board with the costs associated with this task. Chris also briefed the Board on the GDF Task Order – Shenandoah Junction Public Sewer System Evaluation. Kristen requested that Chris proceed with a high-level evaluation of the Shenandoah Junction Public Sewer System. The scope, not to exceed $2,000.00, consists of evaluating the on-site treatment facility and collection system, as well as the costs associated with a system acquisition relating to the Public Service Commission case. Hoy mentioned this would be helpful for the case.

The Chairman next opened the floor for discussion on a Vertical Turbine Pump and Mechanical Seal Quote for Tuscawilla. Kristen noted this quote is for a new vertical turbine pump and a seal replacement at the Tuscawilla pumping station at the Tuscawilla plant. Motion by Pete, second by Tommy with discussion from the Board, the Board approved the vertical turbine pump and mechanical seal.

Next discussed was a Utility Truck Purchase – Sewer. With many vehicles having high mileage and not enough vehicles for field staff to use, Kristen requested the Board set a price cap to purchase a truck for the sewer department. Motion by Jacquelyn, seconded by Tommy, the Board approved the purchase of a truck up to $47,500.00.

The Utility Manager Report was next addressed. Kristen briefed the Board on this month's sewer and water efforts including the completion of the lead and copper sampling, the start of the County Green/Tate Manor gravity line by Kinsley Construction and various RK&K projects. Kristen also mentioned a meeting with Compass Municipal to begin discussions possible refunding of the 2015A & B bonds.

Under the Chairman Report, the Chairman provided the letters requesting ARPA funds were sent out and now awaiting a response. Kristen added there may be additional state funding available for ready projects.

The Board next discussed the Approval of Bills. Motion by Tommy, second by Jacquelyn, with discussion from Jacquelyn, the Board approved the payment of bills. The meeting was adjourned at 5:11 p.m. The July 23rd regular meeting will be held beginning at 4:00 p.m.

_____ _____

Chairman Secretary

CHARLES TOWN UTILITY BOARD
ENGINEER'S REPORT
JULY 28, 2021

Water Treatment Facility Projects

- GD&F has been working on obtaining quotes and cost estimates for various small improvements such as new VFDs for intake pumps, filter control valve replacement, etc. These projects are expected to be funded by the $244,000 surety money on the water side which must be spent by the end of August 2021.
    1. Replace four (4) existing 12" pneumatic filter system critical butterfly valves and actuators – estimated $48,000 plus labor to install. Valves have reached their useful life.
    2. Two (2) 150 HP variable frequency drives (VFDs) for intake pumps – estimated $62,000. Will allow better flow control, reduce water hammer and save energy costs.
    3. Chlorine room equipment and safety upgrades – estimated $100,000. An additional $10,000 for engineering costs. Equipment outdated and does not meet current safety requirements for chlorine gas.
    4. Automated airburst system for intake screen – estimated $25,000. More efficient cleaning system resulted in less O&M required to manually clean screens.
- GD&F will be updating the Water Treatment Facility System Long Range Plan.

Groundwater Wells

- GD&F has been coordinating with Terracon regarding a Test Well Drilling proposal which includes a separate proposal from drilling company (Valley Drilling). Several proposal revisions have been made and are currently under review.
- CTUB met with Widmeyer's on 7-23-2021 at office. GD&F joined by phone. CTUB to field locate proposed test well.
- Terracon to obtain required well drilling permits from State.
- Drill 8" hole up to 700 feet and perform air lift test to obtain at least 200 GPM.
- Perform drawdown test (72-hour) and perform water quality sampling if initial pump test results are promising.
- Cost estimate currently unknown as proposals are still being revised.

Wastewater R&R Improvement Project

- GD&F has completed the floor plan and building sections of the new centrifuge building and are currently working on the remaining sludge digestion upgrades.
- Architectural, structural, mechanical and electrical design is ongoing. A new generator is required to operate the new digester and solids handling equipment.
- Updating of specifications and design engineer's report ongoing.
- GD&F is currently updating the cost estimate.
- GD&F will be providing a permit submission set of drawings to CTUB for review this week.

Shenandoah Junction Public Sewer Evaluation

- GD&F completed draft evaluation.
- Potential in person meeting with SJPS upcoming.

GD&F
GWIN
DOBSON &
FOREMAN
ENGINEERS

CHARLES TOWN UTILITY BOARD

CITY OF CHARLES TOWN

JEFFERSON COUNTY, WEST VIRGINIA

SHENANDOAH JUNCTION PUBLIC SEWER EVALUATION

JULY 2021

GD&F
GWIN DOBSON & FOREMAN
ENGINEERS

Introduction

The Charles Town Utility Board (CTUB) is currently evaluating potential options to either obtain the Shenandoah Junction Public Sewer, Inc. (SJPS) as a resale customer or acquisition of the SJPS system. GD&F attended a meeting with SJPS, the PSC and CTUB on May 20, 2021, which featured a site visit of the SJPS Wastewater Treatment Facility. GD&F has been requested to briefly summarize the existing SJPS system and evaluate CTUB's options.

The SJPS system is over 45 years old and serves about 187 customers. They are currently under a DEP Consent Order due to exceeding the daily maximum flow and non-compliance issues pertaining to several NPDES discharge water quality related violations. The WV PSC has determined that SJPS is considered a distressed utility.

Existing SJPS Treatment Facility

The existing SJPS Treatment Facility is in poor condition and has reached the end of its useful life. The site is congested, is within very close proximity to housing, the infrastructure is deteriorated and the treatment process is inadequate. The aeration system is undersized, the filter media has reached its useful life, the disinfection system is outdated and ineffective and the plant lacks continuous flow metering. The treatment plant also lacks a SCADA system, alarms and an emergency generator. The entire treatment facility would need to be replaced if onsite treatment is considered. The existing Wastewater Treatment Facility has little to no salvage value. It would cost more to decommission the plant than the facility would be worth.

The total estimated cost of a new treatment plant consisting of coarse screening, grit removal, SBR basins, UV disinfection and associated blowers, pumps, pumping, chemical feed, SCADA, instrumentation, telemetry, emergency power, site work, electrical work, etc., is $3-4 million. Given the close proximity to CTUB's existing sewer system, it is not feasible to upgrade the existing SJPS wastewater treatment facility.

Existing SJPS Collection and Conveyance System

SJPS reported that most of the collection system is comprised of 6" PVC gravity pipe, 30-35 reinforced concrete manholes and four (4) pump stations with associated 3"-6" PVC forcemains. There are over two (2) miles of collection system piping; however, no detailed system map currently exists. The pump stations were installed from 1990 to 1996 and some of the pumps and piping are still original. The collection system has been extended and expanded over the years by developers. There are approximately 100 homeowners that have on-lot septic systems, some of which have reportedly failed. There are no records kept of potential I&I issues; however, I&I should be considered a concern given the flow exceedances. No recent major upgrades or improvements have reportedly been performed. The total estimated present worth value of the collection and conveyance system is about $750,000.

All four (4) pump stations need substantial upgrades. The pumps, slide rails, check valves and control panels all need replaced. A telemetry alarm and notification system should be installed along with manual transfer switches and consideration should be given to permanent generators. At a minimum, several readily available portable generators are necessary. Pump station site security measures should be implemented and potential odor control systems should be considered. Smoke testing should be

performed to help determine the extent of I&I and to identify any illegal connections. The gravity lines and forcemains should also be videoed to evaluate their condition.

New Pump Station and Forcemain to CTUB System

The existing SJPS Treatment Facility is located approximately 1,000 feet away from an existing CTUB 6" diameter forcemain. Per a previous report completed by RK&K, the existing CTUB system currently has adequate capacity to handle this additional SJPS flow. A new duplex pump station with wet well and building housing valves, meter, controls and telemetry, along with an emergency generator and related sitework could be constructed at the existing SJPS Treatment Facility site. A new forcemain could also be constructed along the railroad tracks to the existing CTUB forcemain. GD&F estimates that it would cost about $600,000 in construction costs for a new pump station and forcemain to CTUB. The existing SJPS Treatment Facility would also need decommissioned and demolished, including all required permitting and legal fees. The total cost to decommission the existing SJPS Treatment Facility is estimated to be $400,000. The estimated CTUB capacity improvement fee (CIF) of $3,207 per equivalent dwelling unit (EDU) would also apply to SJPS, at a total estimated value of $600,000. Refer to Table 1 below for various estimated project costs.

SJPS mentions converting the existing Treatment Facility into an EQ tank and pump station if they were to become a resale customer of CTUB. GD&F does not recommend this conversion. The EQ tank would require tank retrofitting with slide gates, blowers/mixers, level sensors, etc. and would likely result in odor complaints by local residents due to raw sewerage storage. GD&F recommends that a permanent pump station generator be installed in lieu of an EQ tank.

Recommendation to CTUB

The existing SJPS Treatment Facility should be decommissioned and demolished. The total cost required to perform plant upgrades along with the associated operational and maintenance costs are not feasible. It is recommended that SJPS be fully responsible for the facility decommissioning and associated demolition costs.

The existing condition of the SJPS Collection and Conveyance System is largely unknown. The pump stations should be upgraded in terms of the buildings, pumps, piping, controls, electrical, etc. It appears that the I&I is excessive and needs to be addressed. Flow meters should be added at each pump station to trend and record flows. It would be SJPS's responsibility to correct the I&I issues if they were a resale customer of CTUB. It would behoove SJPS to correct the I&I issues since they would be billed by CTUB on a metered basis. If CTUB were to proceed with a system takeover, CTUB would be responsible for evaluating and correcting the I&I issues. Also, the entire SJPS system should be videoed, mapped in GIS and hydraulically modeled.

CTUB should evaluate the current estimated CIF fee that is being offered to SJPS. During our onsite meeting, SJPS seemed to think that this estimated fee was high; however, it appears it may be too low.

Ultimately, GD&F's recommendation is for CTUB to make SJPS a resale customer. In this instance, CTUB would only be responsible for providing a new magnetic flow meter and telemetry system, which is estimated at $30,000. CTUB would also be required to perform the necessary sampling of the SJPS wastewater, similar to what is currently being done at Rockwool. CTUB would still be entitled to the estimated $600,000 CIF and would maintain no responsibility of SJPS's existing system. Moderate SJPS

System I&I would not be a problem as SJPS would be billed on a metered basis. At 18,000 gallons per day, this would equate to about $7,500 per month in CTUB revenue at a billing rate of $13.90 per thousand gallons per month.

TABLE 1: CTUB TAKEOVER OF SJPS SYSTEM PROJECT COST ESTIMATE

1.	Four (4) Pump Station Upgrades	$ 300,000
2.	Perform I&I Study	$ 50,000
3.	Perform I&I Repairs	$ 100,000
4.	Produce GIS System Map and Hydraulic Model	$ 20,000
5.	New Pump Station (Telemetry, Emergency Generator and Sitework)	$ 500,000
6.	New Gravity and Forcemain Piping	$ 100,000
7.	Engineering Costs (Design, Permitting and Construction)	$ 130,000
8.	Legal Fees (Easements, ROWs and Agreements)	$ 20,000
9.	Other Soft Costs [Admin., Contingency, etc.] (15%)	$ 180,000
	Total Estimated CTUB Cost	**$ 1,400,000**
1.	SJPS Decommissioning of WWTP	$ 400,000
2.	SJPS CIF	$ 600,000
	Total Estimated SJPS Cost	**$ 1,000,000**

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT	AMOUNT

APPROVED BY: _____

APPROVED BY: _____

This Packet: $ 87,749.32

Star Buick GMC, cashier's check dated 7/28/2021: 44,410.00

Hatch Invoice# 90779313, check dated 7/14/2021: 14,185.75

Encova Premium, check dated 7/14/2021: 9,277.00

Total: $ 155,622.07

Note:

Highlighted invoice to be reimbursed by the developer

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
GERALD TAYLOR CO., INC.	SUPERVAC/ TRANSPORT	WATER FUND	WATER		537.83
	SUPERVAC/ HAUL	WATER FUND	WATER		450.45
	SUPERVAC/ DISPOSE	SEWER FUND	SEWER		1,990.47
	WW TRANSPORT	SEWER FUND	SEWER		574.74
	SUPERVAC/ DISPOSE	SEWER FUND	SEWER		4,009.02
				TOTAL:	7,562.51
THE CI THORNBURG CO, INC.	5/8"X3/4" SRII TRPL METER	WATER FUND	WATER		3,241.40
	CHLORINE	WATER FUND	WATER		903.00
				TOTAL:	4,144.40
UNITED BANK	FEE 7/1/20 - 6/30/21	WATER FUND	WATER		50.00
				TOTAL:	50.00
USA BLUEBOOK	LONGOPAC CASSETTE BAG	SEWER FUND	SEWER		1,518.53
	GLOVES, DYE, PRY BAR	SEWER FUND	SEWER		571.41
	GLOVES, DYE, PRY BAR	SEWER FUND	SEWER		2,083.46
	APWA GREEN PAINT	SEWER FUND	SEWER		75.49
	FLOW METER DESICCANT	SEWER FUND	SEWER		51.42
	PH12.45 4 LITERS	SEWER FUND	SEWER		265.27
	GLOVES	SEWER FUND	SEWER		300.20
	GLOVES	SEWER FUND	SEWER		150.10
	GLOVES	SEWER FUND	SEWER		940.90
				TOTAL:	5,956.78
VITAL SIGNS	DECALS	WATER FUND	WATER		165.00
	B.GOFF BUSINESS CARDS	WATER FUND	WATER		59.95
	DECALS	SEWER FUND	SEWER		165.00
				TOTAL:	389.95
RON WIDMYER	REIMBRS INV# 50713	SEWER FUND	SEWER		350.86
				TOTAL:	350.86

FUND TOTALS	
50 WATER FUND	31,126.75
60 SEWER FUND	56,622.57
GRAND TOTAL:	87,749.32

TOTAL PAGES: 3

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
	W/E 7/18/21	WATER FUND	WATER		1,102.54
	W/E 7/11/21	SEWER FUND	SEWER		762.37
	W/E 7/18/21	SEWER FUND	SEWER		933.69
				TOTAL:	3,070.11
GANNETT FLEMING VALUATION & RATE CONSU	WW COST SVC STUDY	SEWER FUND	NON-DEPARTMENTAL		5,770.00
				TOTAL:	5,770.00
HACH COMPANY	KTO CHEMKEY	WATER FUND	WATER		772.00
	SPADNS2, CALIBRATION SET	WATER FUND	WATER		756.10
	ULTRA pH REFILLABLE PROBE	WATER FUND	WATER		601.04
				TOTAL:	2,129.14
HOLTZMAN OIL CORP	HYDRAULIC FLUID FOR BELT P	SEWER FUND	SEWER		369.36
				TOTAL:	369.36
INWOOD QUARRY, INC.	C2 PICKUPS: 7/16/21	WATER FUND	WATER		652.81
	I10 PICKUPS: 7/19/21	WATER FUND	WATER		539.34
	I8 PICKUPS: 7/20/21	WATER FUND	WATER		465.72
	M6 & C2 PICKUPS: 7/21/21	WATER FUND	WATER		480.88
	C2 PICKUPS: 7/22/21	WATER FUND	WATER		393.58
				TOTAL:	2,532.33
J/R'S PLUMBING	329 N MILDRED ST REPAIR	SEWER FUND	SEWER		400.00
				TOTAL:	400.00
KABLE EXCAVATING, LLC	MVE EXCVTRS: PARKVIEW-BELV	SEWER FUND	SEWER		380.00
				TOTAL:	380.00
MICRO-TECH DESIGNS, INC.	ENGNRG: CT, TUSC, MAGNL	SEWER FUND	SEWER		370.00
	ENGNRG: CT, TUSC, MAGNL	SEWER FUND	SEWER		740.00
	ENGNRG: CT, TUSC, MAGNL	SEWER FUND	SEWER		370.00
				TOTAL:	1,480.00
PACE ANALYTICAL SERVICES, LLC	TESTING: CT WEEKLY	SEWER FUND	SEWER		184.18
	TESTING: CT	SEWER FUND	SEWER		66.70
	TESTING: TUSC ANNUAL	SEWER FUND	SEWER		596.53
	TESTING: SEMIANNUAL-WV0022	SEWER FUND	SEWER		270.97
	TESTING: TUSCAWILLA SEMIAN	SEWER FUND	SEWER		401.79
	TESTING: CT WEEKLY	SEWER FUND	SEWER		96.00
	TESTING: SEMIANNUAL STORMW	SEWER FUND	SEWER		265.78
	TESTING:WV002349/S01 QTRLY	SEWER FUND	SEWER		61.73
				TOTAL:	1,943.68
POLY COATING SOLUTIONS LLC	COMPLETE MH REHAB	SEWER FUND	SEWER		4,375.00
				TOTAL:	4,375.00
ROSS H BARE	CNTYGRN PS SVC CALL: BRKRS	SEWER FUND	SEWER		150.00
				TOTAL:	150.00
RICHARD SCOTT STEWART	REFNSH UTLTY BD RED 350: J	SEWER FUND	SEWER		1,800.00
				TOTAL:	1,800.00
SG PLUMBING, INC.	122 CHURCH ST: 7/13 - 7/14	WATER FUND	WATER		2,210.84
	73 & 53 DOUGLAS DR	WATER FUND	WATER		1,800.00
				TOTAL:	4,010.84

VENDOR SORT KEY	DESCRIPTION	FUND	DEPARTMENT		AMOUNT
AUTOZONE	PRESTINE DEXCOOL 50/50	WATER FUND	WATER		16.31
	RCYCL'D BATTERY	SEWER FUND	SEWER		10.00-
				TOTAL:	6.31
BIEDLER'S ELECTRIC MOTOR REPAIR, INC.	CT PLANT	SEWER FUND	SEWER		2,678.02
	HUNTFIELD PS	SEWER FUND	SEWER		4,437.65
				TOTAL:	7,115.67
CAPITAL LIGHTING & SUPPLY LLC	WIRE FOR HUNTFIELD PSWIC	SEWER FUND	SEWER		1,989.08
	HUNTFIELD PS CRS LTB300	SEWER FUND	SEWER		81.37
				TOTAL:	2,070.45
CHARLES TOWN SEWER	JUNE FUNDING	SEWER FUND	NON-DEPARTMENTAL		12,872.16
				TOTAL:	12,872.16
CHARLES TOWN WATER	JUNE FUNDING	WATER FUND	NON-DEPARTMENTAL		9,124.29
				TOTAL:	9,124.29
CITY ELECTRIC SUPPLY CO	HUNTFIELD PUMP STATION	SEWER FUND	SEWER		1,187.79
				TOTAL:	1,187.79
COLLIN COLE	REIMB HOMEDEPOT PURCHASES	SEWER FUND	SEWER		177.14
				TOTAL:	177.14
CORE & MAIN	L84-33NL, L14-33NL	WATER FUND	WATER		174.16
	L14-33NL	WATER FUND	WATER		451.22
	SETTER, FLGTEE, FLGRWGVOL,	WATER FUND	WATER		2,615.28
	3/4X100' CTS PE TUBING	WATER FUND	WATER		200.00
	SETTER, FLGTEE, FLGRWGVOL,	SEWER FUND	SEWER		1,264.67
				TOTAL:	4,705.33
COYNE CHEMICAL	AMMONIUM SULFATE 40% NSF	WATER FUND	WATER		1,157.00
				TOTAL:	1,157.00
CRYSTAL SPRINGS	MONTHLY SVC@ 661 S GEORGE	WATER FUND	WATER		32.72
	MONTHLY SVC@ 661 S GEORGE	SEWER FUND	SEWER		32.72
				TOTAL:	65.44
CUMMINS, INC	CAVALAND: FULL PM SERVICE	WATER FUND	WATER		578.90
				TOTAL:	578.90
WV DEPT OF HEALTH & HUMAN SERVICES	FLOURIDE TESTING	WATER FUND	WATER		15.00
	BACTERIOLOGICAL TESTING	WATER FUND	WATER		140.00
	BACTERIOLOGICAL TESTING	WATER FUND	WATER		120.00
				TOTAL:	275.00
DOCUMENT SOLUTIONS, INC	INK FOR PLOTTER: BLACK	WATER FUND	WATER		93.03
				TOTAL:	93.03
FERGUSON US HOLDINGS, INC	HYD DISKS	WATER FUND	WATER		954.85
				TOTAL:	954.85
FIRE SAFETY EQUIPMENT SUPPLY	FIRE EXTINGUISHER SVC	SEWER FUND	SEWER		501.00
				TOTAL:	501.00
GUTTMAN ENERGY	W/E 7/11/21	WATER FUND	WATER		271.51