

STATE OF WEST VIRGINIA, COUNTY OF UPSHUR, CITY OF BUCKHANNON, TO WIT:

A special meeting of the Buckhannon Water Board was held on Thursday, April 20, 2023, at 9:00 a.m. in Council Chambers at City Hall. The following were in attendance (GTM is attendance by GoToMeeting):

Robbie Skinner	Mayor	Present
Randy Sanders	City Recorder	Present
Dave McCauley	Board Member	Present
David Thomas	Board Member	Present
Don Nestor	Board Member	Present
Kelly Arnold	Water Superintendent	Present
Erasmo Rizo	Board Member	Present
Jay Hollen	City Engineer	Present
Jerry Arnold	Director of Public Works	Present
Amberle Jenkins	Assistant Recorder/Director of Finance	Present

Guests: Mark Sankoff, Potesta Engineering by GTM

City of Buckhannon Water Board – 9:00AM at City Hall in Council Chambers
Special Meeting Agenda for Thursday, April 20, 2023

- A. Call to Order
 - A.1 Moment of Silence
 - A.2 Pledge to the Flag of the United States of America
- B. Recognized Guests
 - B.1 Skip Gjolberg-President of the Upshur County Development Authority
- C. Strategic Issues for discussion and vote
 - C.1 Approval of Ownership & Management of the Industrial Park Booster Station
 - C.2 Review & Approval to Accept the Bid Opening Results: Mini Excavator with 6-Way Blade
 - C.3 Draft Water Board Budget FY 2023/2024
 - C.4 Discussion-Inquiry regarding Property on Wood Street near the Water Plant
 - C.5 Valley Green Apartments Water Meter Issues
- D. Board Members Comments and Announcements
 - D.1 Next Meeting May 11, 2023
- E. Adjournment

Posted 04/14/2023

- A. Call to Order - The meeting was called to order by Mayor Robbie Skinner who led all those in attendance in a moment of silence and then the pledge to the flag of the United States of America.
- B. Recognized Guests:
B.1 Skip Gjolberg - President of the Upshur County Development Authority – Mr. Gjolberg was not in attendance.

Mayor Skinner recognized Mark Sankoff of Potesta Engineering, who attended by GoToMeeting.

- C. Strategic Issues for discussion and vote:
C.1 Approval of Ownership & Management of the Industrial Park Booster Station – Mayor Skinner presented this item to the Board. Prior to a motion, Mark Sankoff of Potesta Engineering provided an overview of recent testing of the station noting that even considering a few small problems that came up during the testing, the system is in good working order and is a reliable system worthy of the City taking over. During a discussion, all agreed that in the future the City would be better served in being a part of the complete installation of any utility projects that will untimely involve the City’s management. Due to his position of Executive Director of the Upshur County Development Authority, Mayor Skinner did not participate in the discussion.

Via Email Only

To: Jay Hollen, PE
Kelly Arnold

From: Mark Sankoff, PE

Date: April 19, 2023

Project No.: 0102-21-0235

Subject: Upshur County Industrial Park Booster Station Fire Flow Test

On Friday, April 14, 2023, a team of Water Department, Fire Department, CITCO personnel, the City Engineer and myself was assembled to operate and test the Upshur County Industrial Park Booster Station. This test was done to determine the fire flow capacity and determine if the booster station would flow the amount as specified in the original design and if the station would operate under fire flow conditions. The testing setup began at 10:00 AM and we encountered a couple of issues: (1) a utility power issue and (2) an open pipe issue at the planned fire hydrant test location. We adapted and started the test using the emergency generator and moved the test location to the next fire hydrant past the planned hydrant, which provided similar results. Mon Power was called and the utility power issue was fixed by CITCO, which allowed the remainder of the test to be accomplished using utility power.

While converting back to utility power, we also tested the backup emergency power equipment to ensure the generator would come on when utility power was off, and while the generator did come on, the automatic transfer switch did not transfer power to the booster station. Generator power was successfully transferred manually. Once the utility power issue was addressed and the test moved to the next fire hydrant down, flow tests began. The two domestic pumps, each rated for 50 gpm, operated normally all through the tests and no changes were made to those pumps. CITCO did note that the domestic pumps ramped up and down in 3 seconds which will result in more start and stops over time. The Programmable Logic Controllers (PLC) can be adjusted to longer ramp up and ramp down times, but for now were left alone. The booster station is equipped with a bladder tank to allow for some water usage before a domestic pump comes on to reduce starts and stops also. The customers on the line were shut off at their respective meters to avoid any pressure surges and it was noted that the domestic pumps continued to operate on and off while the testing was not occurring. This situation was discussed and it was agreed that there is a small leak somewhere in the system that will have to be tracked down and fixed.

When the fire flow testing began, the fire pump cut off due to current overload several times. Issac with CITCO discussed this with me and Tommy Rolenson with the Water Department at the booster station and this failure was similar to the previous test, which was shut down due to this reoccurring

issue. Issac reviewed the online technical manuals and had phone discussions with Grundfos (or CITCO) and took voltage and amp readings. He determined that the Variable Frequency Drive (VFD) for the fire pump was kicking out at full load of 60 hertz due to flow variations and current draw. We discussed it and he recommended we reduce to 50 hertz and restart the test, which we did. When this next test was started, the fire flow pump worked as designed as it continued to pump while the flow was ramped up and down, from a 450 gpm test, to a 550 gpm test, to a maximum flow test, all in an effort to see what the pump would pump and see if the pump would pump without kicking off. If there is a need for a fire hydrant to be used, the pump needs to pump while needed and reliability is a must. From the testing, the fire pump continued pumping during the testing, including the Fire Department's ramping flow up, then down, then off and changing nozzles to go to bigger nozzles to get more flows. All the while at the booster station, the booster station operated with all three pumps in automatic mode. At this point, the testing was completed and everything was shut down and returned to pretest operation with the booster pump station being turned off. At the Water Department's request, CITCO saved the VFDs' settings to the master screen to allow a swap out without losing the data, in case of a VFD failure.

There were several issues noted that need to be addressed and some recommendations.

1. Emergency Generator ATS needs to transfer the emergency power automatically. While at the site, Jay Hollen called the contractor working on the Buckhannon FEMA generators, who was also the electrical contractor who installed and wired the Industrial Park Booster Station's automatic transfer switch, and the contractor said he could fix it and Jay is having it addressed.
2. The VFDs do not have individual disconnects but the pumps do after the VFDs. It was recommended by CITCO this be addressed by a relatively simple rewiring to use the existing disconnect ahead of the VFDs, which will also cover the pumps. Jay talked to the contractor in Item 1 above and he will address this when he works on the ATS issue.
3. Telemetry should be added to the booster station at the earliest opportunity to allow the Water Department to monitor the booster station and notify the Water Department if there is an issue.
4. Install the 2-inch meter in the booster station to monitor the flow through the station to be able to monitor for leaks by comparing this flow versus the amount used in the park.
5. Include this booster station in a standard operational procedure similar to the Airport Booster Station to have an operator go to the booster station in case there is an issue, so if the fire pump would shut down for any reason, it can be restarted quickly.
6. Distribution issues and recommendations.

- a. Either locate the 2-inch valve, if installed, or insert a new 2-inch valve at the end of the 6-inch line to allow for the 2-inch system to be isolated for leak detection.
- b. Attempt to find the small leak found during the test, due to the size of the leak and the City not knowing exactly where the mains are located, this may prove problematic and time consuming.
- c. Find and locate all the known valves with valve markers, measurements and GPS coordinates.
- d. Install City water meters in the existing meter barrels.
- e. Sign the existing customers up to City accounts.
- f. Notification to the customers of the increase in pressure when the booster station is permanently turned on.
- g. Turning the system on and monitoring the system during the initial startup (turn on early in the work week, not on a Friday).

The Water Department has operated the Airport Booster Station and understands its issues. The Industrial Park Booster Station is configured differently with more up-to-date VFDs to operate all the pumps including the fire pump. Designating a person to take some training on the VFDs would allow the Water Department to troubleshoot issues.

A long-term goal for the City and the Upshur County Industrial Park should be to have a water storage tank constructed onsite to provide onsite water for fire protection and domestic use. I recommend a site be designated for a future tank. If the park grows in the number of customers over time or a large water user would like to locate in the park, a storage tank will be required.

Fire Flow Test Results Summary

The fire flow testing was done by setting up a doppler flow meter on the 8-inch PVC pipe that was exposed (dug up) by the Water Department the day before. The Fire Department also had a flow meter on the truck and the results were compared and were very close to each other. Pressure gauges were set up on the test hydrant and a hydrant next to the doppler meter. The booster station has pressure gauges on both the suction and discharge side of the pumps. The booster station is set up for the pumps to maintain 166 psi at the discharge of the pumps. As water is used, the pressure drops and the pumps ramp up to try to maintain the 166-psi discharge pressure. If the first domestic pump does not meet demand, the second domestic pump ramps up and if both pumps fail to maintain the pressure, then the fire pump comes on.

Test No. 1: 450 gpm - This was the first test because one of the control points was to maintain 450 gpm at 35 psi at the new WV Split Rail Facility’s fire suppression system water line. The flow at the fire truck was 450 gpm with a residual pressure of 110 psi. Test No. 1 passed.

Test No. 2: 550 gpm - This was the design point on the plans for the fire pump to pump 550 gpm. The flow at the fire truck was 550 gpm at 110 psi residual pressure. Test No. 2 passed.

Test No. 3: Maximum Flow - This was to see the maximum amount the pump would put out and would the pump maintain pumping. Flow increased to 700 psi and residual pressure dropped to 50 psi. The drop off in pressure from 550 gpm at 110 psi to 700 gpm at 50 psi indicates that the pump was pumping full out and full flow was reached. Suction and discharge (129 psi) pressures at the booster station were down also as flow was being taken through the existing lines from the water storage tank, similar to all water distribution systems reaching full flow conditions.

The fire flow test met the conditions outlined above and operated at full flow during the test. Having an operator at the booster station during a fire to keep an eye on the discharge pressure and if the discharge pressure drops below 130 psi to have the Fire Department pull back slightly on the flow would be a recommendation to maintain full flow without pushing the pump too far.

The flow test was a success due to the cooperation of all the personnel involved, I appreciate the effort that went into preparing for this test and everyone’s willingness to adapt as issues came up.

If during the review of this memorandum, the City of Buckhannon sees an issue or discrepancy, Potesta & Associates, Inc. reserves the right to amend this memorandum.

MAS/clr

Motion for the City of Buckhannon Water Department to take over ownership & management of the Industrial Park Booster Station was made by Rizo/Nestor. Motion carried with Mayor Skinner abstaining due to his position of Executive Director of the Upshur County Development Authority.

C.2 Review & Approval to Accept the Bid Opening Results: Mini Excavator with 6-Way Blade – Mayor Skinner recognized Water Department Superintendent Kelly Arnold who reported that the bid opening for the Mini Excavator with 6-Way Blade took place on April 13, 2023 at 11:00 a.m., with Kelly Arnold, Jerry Arnold, Jay Hollen (all of the City of Buckhannon) and Brandon Magill of State Equipment present. He explained the overview of the bids and the recommendation to accept the bid for a Kubota, Modell KX040-4R3T, with heat, a/c, and per the additional specs shown on the bid sheet that is part of the packet, from State Equipment, Inc., for a total of \$73,508.

ADVERTISEMENT FOR BIDS

BUCKHANNON WATER BOARD

MINI EXCAVATOR (MINI TRACK HOE)

The Buckhannon Water Board will accept sealed bids for a **mini excavator** at City Hall at 70 East Main Street, Buckhannon, WV 26201 until 11:00 AM EST on April 13, 2023, at which time all bids which have been received shall be publicly opened and read aloud.

Minimum characteristics of the **MINI EXCAVATOR** to be provided by this bid are as follows:

- Rubber belt tracks
- Hydraulic quick coupler which must be provided by the original equipment manufacturer (OEM)
- Auxiliary hydraulic lines provided for tool attachments
- A maximum tail swing of 17.7", counter weights included, over the side of the tracks.
- Long stick arm and a minimum digging depth of 11'2.7" is required.
- Machine must be capable of lifting 2,000 pounds over the front of the machine with the blade down, and arm extended 14 feet.
- Cab must have air conditioning and heat.
- Machine must have a net 38 to 40 horsepower turbo charged engine.
- Blade on front must be a 6-way blade.
- Blade on front must have a bolt on cutting edge.
- Include a 18inch and 12inch heavy duty buckets.
- Include a thumb attachment.
- A minimum machine weight of 9900 pounds and a maximum machine weight of 11000 pounds.

Bidder must provide the following items.

- Must provide documented 3 years of reputable sales and service, prior to bid.
- Combined bid price of mini excavator delivered to Buckhannon Water Plant. Bid sheet shall include specific identification of the equipment to include: 1) vendor, 2) manufacturer, 3) model, 4) year, and 5) list of special features. Bid sheet is to be signed by an authorized representative of the vendor.
- Availability of mini excavator to include a delivery date if ordered by April 3, 2023.
- Product literature including basic specifications of the model mini excavator being offered.
- Vendor financing available, including interest rate, monthly payment, and total cumulative payment for vendor financing over a 60-month term.
- Equipment warranty. Include calendar time, operating time, and components covered by warranty. Warranty must be for a minimum of 2 years, 2000 hours.
- Location of and distance from Buckhannon of closest full-service sales, parts, and service center for equipment manufacturer.
- Name, location, and telephone number of three customers in West Virginia who have recently purchased a similar piece of equipment.

Bids are to be delivered in a sealed envelope marked, Attention: Kelly W. Arnold, "Mini Excavator Bid". If there are any questions, please call Kelly W. Arnold at 304-472-2530 ext.1803.

The Buckhannon Water Board shall evaluate bids received based on price, financing, equipment specifications, operator satisfaction, service availability, and references. Buckhannon reserves the right to reject any and all bids and to waive any informalities.



STATE EQUIPMENT, INC.

Quote Page 1 of 2
Quote Number: 502826
Effective Date: 04/12/2023
Valid Through: 04/30/2023

Ship To	Kubota Dealer	Bill To
City of Buckhannon Kelly Arnold 70 East Main St Buckhannon, WV 26201 Work: (304) 472-2530 ext.1803	STATE EQUIPMENT, INC. 5541 BENEDUM DR SHINNISTON, WV 26431 Brandon Magill Phone: 3048415869 Email: Bmagill@stateequipment.com	City of Buckhannon Kelly Arnold 70 East Main St Buckhannon, WV 26201 Work: (304) 472-2530 ext.1803

KX040-4R3T - EXCAVATOR W/RUBBER TRACKS, CAB & 6-IN-1 BLADE

2023 Year Model



Description	Manufacturer	Model #	Qty	MSRP	Price Each	Total
KX040-4R3T - EXCAVATOR W/RUBBER TRACKS, CAB & 6-IN-1 BLADE <i>w/Heat & A/C</i>	Kubota	KX040-4R3T	1	\$76,153.00	\$71,851.93	\$71,851.93
K7849 HOSE COMPLETION KIT FOR KX040-4	Kubota	K7813	1	\$992.00	\$1,005.23	\$1,005.23
TRAVEL ALARM KIT	Kubota	K7927	1	\$158.00	\$160.11	\$160.11
EXCAVATOR HYDRAULIC COUPLER	Kubota	K7849	1	\$1,874.00	\$1,898.99	\$1,898.99
HYDRAULIC THUMB KIT	Kubota	K7910A	1	\$3,923.00	\$3,975.31	\$3,975.31
12" QUICK ATTACH TRENCHING BUCKET	Kubota	K7872A	1	\$1,416.00	\$1,434.88	\$1,434.88
18" QUICK ATTACH TRENCHING BUCKET	Kubota	K7874A	1	\$1,600.00	\$1,621.33	\$1,621.33

Cash Details

Equipment Total	\$81,947.78
Delivery	\$400.00
Cash Incentives	(\$7,853.78)
Cash Sale Price	\$74,494.00

Manual Quick Coupler Less - 988.⁰⁰

Delivery to Be within 10 Days of signed order less Hydraulic Quick Coupler. to Be installed with manual Quick Coupler For 10 Day Delivery.

Tom Connolly

City of Buckhannon Water Department					
Mini Excavator (Mini Track Hoe)					
Bid Opening Sign-In and Results Sheet -April 13, 2023 11:00AM					
Name	Company	Email Address	Contact Phone Number	Bid Bond Included (Y/N)	Base Bid Amount
Jerry Arnold	City of Buckhannon, WV	jarnold.buckhannon@gmail.com	304-677-3862		
Kelly W. Arnold	City of Buckhannon, WV	kelly.arnold@buckhannonwv.org	304-642-5819		
Jay Hollen	City of Buckhannon, WV	jay.hollen@buckhannonwv.org	304-472-1651		
Brandon Magill	State Equipment, Inc.	bmagill@stateequipment.com	304-841-5869		\$74,494.00
Note:					
Upon review of the one received bid for compliance with the Bid Package, Drawings and Project Specifications, the Apparent Low Bidder Is State Equipment Inc.					

Motion to approve the bid as presented for a Kubota, Modell KX040-4R3T from State Equipment, Inc., for a total of \$73,508 was made by McCauley/Thomas. Motion carried.

C.3 Draft Water Board Budget FY 2023/2024 – Mayor Skinner recognized Amberle (Amby) Jenkins who presented an overview of the proposed Water Board Budget FY 2023/2024. Discussion took place with no action being taken as this meeting.

C.4 Discussion-Inquiry regarding Property on Wood Street near the Water Plant – Mayor Skinner presented the next item, Discussion-Inquiry regarding Property on Wood Street near the Water Plant, to the Board providing an overview. Board member McCauley recommended that we move into an Executive Session to discuss property matters.

At 9:23 a.m., a motion to move into Executive Session to discuss property matters was made by McCauley/Rizo. Motion carried.

At 9:36 a.m., a motion to leave the Executive Session where a discussion on property matters took place was made by McCauley/Thomas. Motion carried.

Motion to authorize Amby Jenkins to negotiate with the owner of property on Wood Street that is located near the Water Plant with the hope that we will be able to secure the property below the current asking price of \$60,000 was made by McCauley/Thomas. Motion carried.

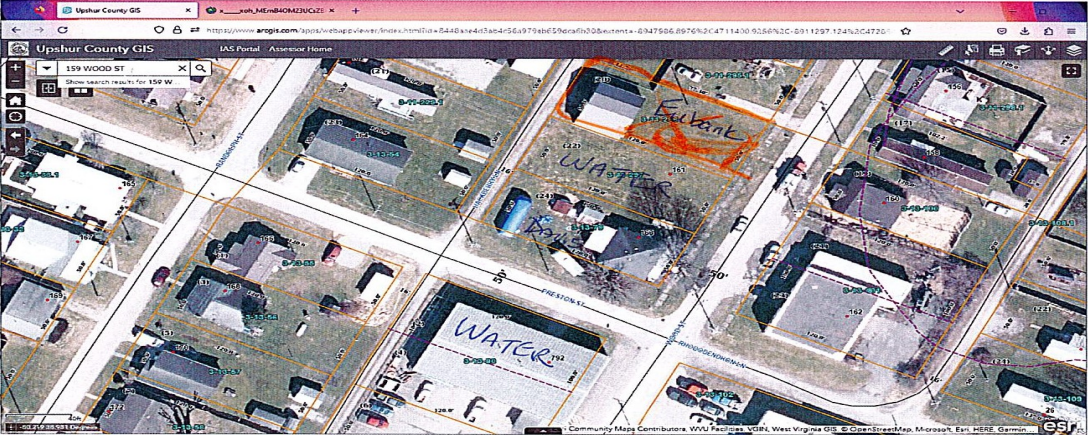
To: Water Board

From: Amby

Roberta Eubank called to let the Water Board know that she is interested in selling property that she owns near the Water Plant at 159 Wood Street.

She wanted to know if the Water Board was interested in purchasing this property. She indicated \$60,000 price.

Roberta Eubank – phone 304-472-1488



C.5 Valley Green Apartments Water Meter Issues – Mayor Skinner noted that this item was on the agenda per a request by Board member McCauley. Mr. McCauley provided his concerns with the water system at Valley Green Apartments specifically the system potentially not having adequate flow for fire service. A discussion took place noting that is has long been the desire from the Water Department to place a Master Meter on the system to determine if there are significant leaks in the system.

Motion to ask the City Attorney to work with the Water Department to prepare appropriate correspondence listing our concerns with the Valley Green Apartments Water System and need for a master meter and send it to the owners of the Valley Green Apartments, was made by McCauley Thomas. Motion carried.

Mr. McCauley requested that this matter be left on the upcoming agendas for updates and progress reports.

D. Board Members Comments and Announcements

- **Next Meeting May 11, 2023.**
- **Dave Thomas:** Mr. Thomas thanked everyone for all that they do.
- **Dave McCauley:** Mr. McCauley noted a recent story on Good Morning America regarding the Los Angeles Water System deficiencies that would cost nearly 50 billion to upgrade. He feels that we are blessed to have the system that we have, even though we face many necessary upgrades as well.
- **Erasmus Rizo:** Mr. Rizo appreciates the continued dialogue that this Board has with new ideas being presented and discussions regarding ways to better the system and continue to provide excellent water to our customers. He thanked all those responsible.
- **Don Nestor:** Mr. Nestor had left the meeting.
- **Randy Sanders:** Mr. Sanders had nothing further
- **Kelly Arnold:** Mr. Arnold provided several employee updates. Tom Davis will be taking his Class III Operator’s test soon; Eric Thomason had a slight heart attack; he also obtained his Class II and will soon take his Class III. He thanked the Board for all the support.

Mayor Skinner also thanked everyone for their hard work in providing excellent water to our customers. He noted a recent trip he took to Myrtle Beach to visit his parents where he took several gallons of Buckhannon City water, which they were thrilled to receive.

E. Motion to Adjourn at 9:45 a.m. was made by Rizo.

Mayor Robert N. Skinner III _____

City Recorder Randall H. Sanders _____