

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

A regular scheduled meeting of the City of Buckhannon Sanitary Board was held February 15, 2018 at 4:00 pm at City Hall with the following persons present:

Mayor	David McCauley	Present
Recorder	Susan Aloi	Absent
Finance Director/Assistant Recorder	Amberle Jenkins	Present
Board Member	Gene Frye	Present
Board Member	Phil Loftis	Present
Engineer	Sam Ludlow	Present
Sanitary Superintendent	Erasmus Rizo	Present
Director of Public Works	Jerry Arnold	Present

Meeting Agenda Posted 02/12/18

***City of Buckhannon Sanitary Board – 4:00 pm in Council Chambers
Meeting Agenda for Thursday, February 15, 2018***

A. CALL TO ORDER

- A.1 Moment of Silence
- A.2 Pledge to the Flag of the United States of America

B. RECOGNIZE GUESTS

C. CONSENT AGENDA

- C.1 Approval of Minutes – January 19, 2018 Sanitary Board Meeting

D. FINANCIAL REPORT-AMBY

E. DEPARTMENT ADMINISTRATIVE REPORT- Erasmo Rizo

- E.1 GRANTS
- E.2 PERSONNEL
 - 1. New Hire
 - 2. Employee Training & Safety
 - 3. I&I Report
 - 4. Pump Station Operation Status
 - 5. Buckhannon Plant Operation Status
 - 6. Historical Project Completion Percentage

F. SANITARY SEWER

COMPLETED PROJECTS:

- 1. Stairs Camden
- 2. 34 Shawnee Sewer Tap

WORK IN PROGRESS

- 1. Swisher Culvert/Sewer
- 2. MH, Collection System, Trouble areas

PLANNING PROJECTS Sanitary Sewer Work-List:

- 1. Corridor H-South Extension
- 2. Citizens Bank, Stormwater and Sewer Relocation

G. STORMWATER

COMPLETED PROJECTS:

- 1. Stormwater Inlet Jaw Bone Park
- 2. Culvert Removal
- 3. Stormwater Tap on CCWV & Orion Buildings
- 4. Sidewalk Repair

WORK IN PROGRESS

- 1. Huffman Alley Improvements
- 2. Swisher Culvert/Sewer

PLANNING PROJECTS Storm Sewer Work-List:

- 1. Stormwater Manual and Details (Step B-Permitting/inspection/enforcement)
- 2. Stormwater Billing

H. PLANT

- 1. Tests
- 2. Lunch Room Upgrades
- 3. Screw Pumps
- 4. Plant Pump Station

I. CORRESPONDENCE & INFORMATION

- 1. Letter from WVDOH re: Blanket Permit

J. STRATEGIC ISSUES

- 1. Building Construction on Sewer ROW
- 2. Tennerton Board Meeting

- K. BOARD MEMBERS COMMENTS AND ANNOUNCEMENTS
- L. MAYOR'S COMMENTS AND ANNOUNCEMENTS
- M. ADJOURNMENT

POSTED 02/12/18

Mayor McCauley called the meeting to order, asked those present to remember the family and friends of the victims involved the school shooting in Florida, then for a moment of silence and pledge to the US Flag.

Consent Agenda:

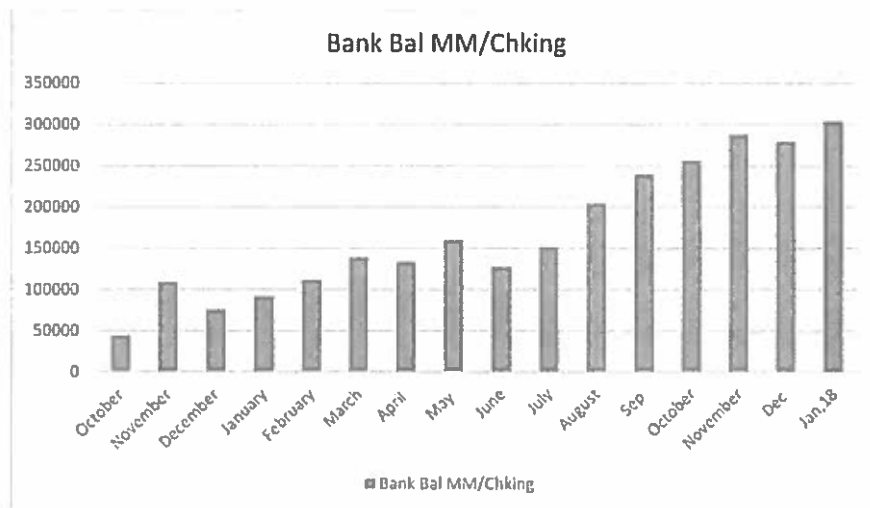
Motion Frye/Loftis to approve the minutes of the meeting held January 19, 2018. Motion carried.

Financial report- Amberle Jenkins-The following information was submitted as information for the Board Members. Mrs. Jenkins also commented that a new server will need to be budgeted for FY 18-19.

**SANITARY BOARD
CITY OF BUCKHANNON
BALANCE SHEET**

Balance January 31, 2018

Money market checking	\$ 303,870.86
CD at FCB	\$ 22,788.53
CD Investment	\$ 40,388.14
2% Depreciation fund	\$ 29,268.61 (Closed Out 7-27-16)



02-08-2018 10:07 AM

DISBURSEMENTS 01-01-18 TO 01-31-18

FUND: SANITARY

DEPARTMENT	VENDOR NAME	GL ACCOUNT	ACCOUNT DESCRIPTION	DESCRIPTION	AMOUNT		
POWER/FUEL/UTILITY	MCN POWER	711-413-00	EAST MAIN ST	110084766556 E MAIN	387.51		
		711-713-00	DEANVILLE	110086407977 DEANVILLE	102.91		
		711-313-00	VICKSBURG	110086525471 STAMORE	954.48		
		711-913-00	MADISON STREET	110087327497 RANDOLPH	18.71		
		711-513-00	WOOD/RITCHIE STS	110086976856 WOOD	190.19		
		711-813-00	ISLAND AVENUE	110088930133 ISLAND AVE	45.58		
		711-914-00	TJM SEWAGE STATION	110087907595 TJM SEWAGE PL	37.46		
		711-915-00	WESTON ROAD	110087676356 WESTON RD	37.86		
		711-917-00	BRUSHY FORK PS	110085299060 BRUSHY FORK R	34.43		
		711-918-00	RT 20 SEWER PUMP STA	110 088 984 965 RT 20	9.85		
		711-113-00	PLANT POWER	110 088 308 280 RT. 5	5,015.24		
		711-213-00	ELIAS STREET	110 088 305 898 ELIAS ST	1,787.12		
		711-613-00	MONONGALIA ST	110082080448 MCN & WOOD ST	162.51		
		711-919-00	1 BUCKHANNON RD	110 088 263 998 BUCKHANNON	16.64		
		711-921-00	BROOKS ST PUMP STA	110 100961546 BROOKS ST	268.61		
		711-920-00	FIRST ECA MIDSTREAM	711-920-00	PLANT VEHICLES-2,3,8	SANITARY DEC 2017 FUEL BIL	1,518.53
		711-920-02			NATURAL GAS	SALES FOR 12/17	366.00
					TOTAL:		10,953.63
		UNIFORMS	UNIFIRST CORP.	712-345-00	UNIFORMS	ALL DEPT DEC 2017 UNIFORMS	480.27
					TOTAL:		480.27
LINES	SOUTHERN STATES COOP INC RITE-WAY HEATING & PLUMBING NAPA-AUTOWER AUTO SUPPLY CODY TEDNEY MISS UTILITY OF WEST VIRGINIA LOWES BUSINESS ACCOUNTS	713-243-00	SUPPLIES LINES	COVERALLS BRIAN MITCHELL	109.99		
		713-243-00	SUPPLIES LINES	HARKING PAINT	53.64		
		713-443-00	EQUIPMENT & MAINTENA	BATTERY	116.88		
		713-443-00	EQUIPMENT & MAINTENA	FUEL FILTER P-9	5.99		
		713-143-00	FACILITIES MAINTENAN	REIMS CDL LIC RENEWAL FEE	43.75		
		713-443-00	EQUIPMENT & MAINTENA	LOCATES DEC 2017	16.10		
		713-243-00	SUPPLIES LINES	PCRD- P6 TRK SUPPLIES	182.32		
713-243-00	SUPPLIES LINES	TYVEK SUITS HEAD LAMP	98.60				

2-08-2018 10:07 AM

DISBURSEMENTS 01-01-18 TO 01-31-18

FUND: SANITARY

DEPARTMENT	VENDOR NAME	GL ACCOUNT	ACCOUNT DESCRIPTION	DESCRIPTION	AMOUNT
		713-243-00	SUPPLIES LINES	HASTOC TAPE MEASURES	70.21
	BRUFFEY TRUCKING INC	713-243-00	SUPPLIES LINES	1 1/2 CR STONE - RESTOCK	340.86
	BUCKHANNON POSTMASTER	713-443-00	EQUIPMENT & MAINTENAN	PCRD SWIP OIL SAMPLES	12.48
	TRACTOR SUPPLY CREDIT PLAN	713-443-00	EQUIPMENT & MAINTENAN	PCRD-FUEL PUMP P9	299.99
	REP SALES AND SERVICE	713-243-00	SUPPLIES LINES	BUCKET SEWER AID-LINE MAI	365.76
				TOTAL:	1,716.57
PLANT	SOUTHERN STATES COOP INC	714-643-00	OPERATION PLANT EXPE	10 CASS8 SPRING WATER	39.00
	WV BUREAU FOR PUBLIC HEALTH	714-643-00	OPERATION PLANT EXPE	DAN BAKER CLASS 4 CERTIFIC	200.00
	MAINLINE LLC	714-143-00	FACILITIES MAINTENAN	FLAT BARS HANDLING & CUT	169.95
	RITE-WAY HEATING & PLUMBING	714-143-00	FACILITIES MAINTENAN	PVC PIPE COUPLER 90L	0.85
		714-143-00	FACILITIES MAINTENAN	AIR FILTERS PLANT HVAC	37.44
		714-343-00	EQUIPMENT MAINTENANC	BUSHING NIPPLE CLAMP PIPE	32.28
	AIRGAS USA, LLC	714-643-00	OPERATION PLANT EXPE	COMPRESSED GAS, DISC W/SP	35.84
		714-643-00	PUMP STATION REPAIR	CARBIDE BAR SET KILAS P/8	113.84
	J T MARTIN COMPANY INC	714-143-00	FACILITIES MAINTENAN	INSPECTION/RECHARGE	71.00
		714-143-00	FACILITIES MAINTENAN	INSPECTION/RECHARGE	284.99
	RELIANCE LABORATORIES INC	714-243-00	LAB EXPENSE PLANT	SUB SAMPLE #1	24.00
		714-243-00	LAB EXPENSE PLANT	CHRONIC TOXICITY	800.00
	ENAOUA	714-343-00	EQUIPMENT MAINTENANC	LAMPS & BALLASTS	2,448.00
		714-343-00	EQUIPMENT MAINTENANC	LAMPS & BALLASTS	1,377.00
	NAPA-AUTOMOTIVE AUTO SUPPLY	714-643-00	OPERATION PLANT EXPE	WORK LIGHT - SHOP	19.99
		714-643-00	OPERATION PLANT EXPE	WINDSHIELD FLUID	42.52
		714-343-00	EQUIPMENT MAINTENANC	WRENCH RACKS P-8	24.12
		714-343-00	EQUIPMENT MAINTENANC	FUEL LINE HOSE P-8	1.25
		714-343-00	EQUIPMENT MAINTENANC	BATTERY WIRE P-8	60.75
		714-343-00	EQUIPMENT MAINTENANC	WIRE LOOM QUICK DISCONNECT	36.74
		714-343-00	EQUIPMENT MAINTENANC	WIRE LOOM QUICK DISCONNECT	6.79
		714-343-00	EQUIPMENT MAINTENANC	PINTLE HOOK ADAPTER P-8	154.27
		714-343-00	EQUIPMENT MAINTENANC	GLASS FUSE HOLDER BULD	5.95
		714-343-00	EQUIPMENT MAINTENANC	HOOK WITH BALL P-8	80.97
		714-143-00	FACILITIES MAINTENAN	FLAT WASHER CAP SCREW	5.52
		714-343-00	EQUIPMENT MAINTENANC	COUPLER,CONNECTOR GUAGE	27.42
		714-643-00	OPERATION PLANT EXPE	STARTING FLUID, SILICONE	30.08
	APPLIED INDUSTRIAL TECHNOLOG	714-143-00	FACILITIES MAINTENAN	BACK STOP -SCREW PUMP #2	934.55
	NORTH CENTRAL LABORATORIES	714-243-00	LAB EXPENSE PLANT	STIRRING FROBE GRID FILTER	1,095.95
	LOWES BUSINESS ACCOUNTS	714-343-00	EQUIPMENT MAINTENANC	DR ALUM SK RAI	32.22
		714-343-00	EQUIPMENT MAINTENANC	BACKSAP POCKET SCREW P8	17.04
		714-643-00	OPERATION PLANT EXPE	SPRAY CAN ORGANIZER-P8	39.05
		714-343-00	EQUIPMENT MAINTENANC	1LB SHANK BOX -AIR COMPRE	33.84
		714-343-00	EQUIPMENT MAINTENANC	SCREWS 3/8" DOOR 2X4X92	208.65
	JENKINS FORD INC	714-343-00	EQUIPMENT MAINTENANC	STEP ASI P-8	349.13
	SILVESTER W. LOWTHER	714-143-00	FACILITIES MAINTENAN	B-68 BELTS-SCREW PUMP	48.56
		714-343-00	EQUIPMENT MAINTENANC	HYD HOSE P-8 AIR COMP	72.00
		714-343-00	EQUIPMENT MAINTENANC	AIR/HYD HOSE - SHOP	48.60
		714-343-00	EQUIPMENT MAINTENANC	SCREW PIN SHACKLE P-8	10.50
	BUCKHANNON DISCOUNT TIRE	714-343-00	EQUIPMENT MAINTENANC	TIRES CAT HOE P-11	1,134.00
	TRACTOR SUPPLY CREDIT PLAN	714-343-00	EQUIPMENT MAINTENANC	PCRD HOSE REEL	49.99
		714-343-00	EQUIPMENT MAINTENANC	PCRD CORD REEL	74.99
	US CELLULAR	714-543-00	TELEPHONE	704-7883 7882 931-0814 439	249.04
	UPS FREIGHT	714-143-00	FACILITIES MAINTENAN	FREIGHT FOR LAMPS	152.61
	CRITES ELECTRICAL SUPPLY INC	714-343-00	EQUIPMENT MAINTENANC	CRIMP LUG CRIMP CON	11.42
		714-343-00	EQUIPMENT MAINTENANC	2 HOLE STRAPS P-8	3.27
	BCN TELECOM INC	714-543-00	TELEPHONE	472-5459 & 7765	12.13

02-08-2018 10:07 AM

DISBURSEMENTS 01-01-18 TO 01-31-18

FUND: SANITARY

DEPARTMENT	VENDOR NAME	GL ACCOUNT	ACCOUNT DESCRIPTION	DESCRIPTION	AMOUNT
	ST JOSEPH HOSPITAL OF BUCKHA	714-143-00	FACILITIES MAINTENAN	LAB TEST SCOTT CRITES	50.00
	HOLIDAY INN EXPRESS	714-243-00	LAB EXPENSE PLANT	PCRD-DBAKER RM	378.40
	CLEVELAND BROTHERS EQUIPMENT	714-343-00	EQUIPMENT MAINTENANC	CYLINDER BOOM P-18	2,925.00
		714-343-00	EQUIPMENT MAINTENANC	O-RING SCREEN AS	189.47
	MICROLOGIC INC	714-743-00	TELEMETRY	SAN MONTHLY SECURITY MONIT	149.75
	WHALEY DISTRIBUTING	714-643-00	OPERATION PLANT EXPE	HAND CLEAN MADNESS	111.44
	FRONTIER	714-543-00	TELEPHONE	304-472-5459-101515-4	77.32
SALARIES PLANT/LINES	**PAYROLL EXPENSES			1/01/2018 - 1/31/2018	41,627.36
				TOTAL:	56,237.74
SALARIES BOARD/OFFICE	**PAYROLL EXPENSES			1/01/2018 - 1/31/2018	3,565.02
				TOTAL:	5,565.02
FICA/INSURANCE	FORT DEARBORN	718-105-00	HEALTH INSURANCE	SAN JAN 2018 LIFE INS	78.20
	WV PUBLIC EMPLOYEES INSURANC	718-105-00	HEALTH INSURANCE	SAN JAN 2018 RETIREE'S INS	2,517.00
	MOUNTAIN STATE BLUE CROSS	718-105-00	HEALTH INSURANCE	SAN JAN 2018 HEALTH INS	16,225.25
	MORGAN WHITE GROUP	718-105-00	HEALTH INSURANCE	SAN JAN 2018 PREMIUM SAVER	1,824.92
	INTERNAL REVENUE SERVICE	718-104-00	FICA TAX	FICA WITHHELD AND MATCHED	1,434.73
		718-104-00	FICA TAX	FICA WITHHELD AND MATCHED	1,509.87
		718-104-00	FICA TAX	MEDICARE WITHHELD & MATCHE	335.53
		718-104-00	FICA TAX	MEDICARE WITHHELD & MATCHE	353.11
				TOTAL:	24,278.61
RETIREMENT	WV PUBLIC EMPLOYEES RETIREME	719-106-00	GROUP RETIREMENT	WV RETIREMENT CONTRIBUTION	2,114.77
		719-106-00	GROUP RETIREMENT	WV RETIREMENT CONTRIBUTION	2,125.34
		719-106-00	GROUP RETIREMENT	WV RETIRE TIER2 CONTRIBUTI	321.23
		719-106-00	GROUP RETIREMENT	WV RETIRE TIER2 CONTRIBUTI	311.08
				TOTAL:	4,872.42
UNEMPLOYMENT/COMPENSAT	BRICK STREET MUTUAL	720-226-00	UNEMPLOYMENT/COMPENS	WCB1005474 12-4-17 TO 1-1-	1,450.57
		720-226-00	UNEMPLOYMENT/COMPENS	WCB1005474 12-4-17 TO 1-1-	20.11
		720-226-00	UNEMPLOYMENT/COMPENS	WCB1005474 12-4-17 TO 1-1-	17.08
				TOTAL:	1,487.76
BILLING/COMPUTER/DRP	I RALSTON PRESS INC	783-341-00	BILLING & COLLECTING	ENVELOPES	93.53
	XEROX CORPORATION	783-341-00	BILLING & COLLECTING	METER USAGE 11-21 TO 12-21	110.76
	PITNEY BOWES INC	783-341-00	BILLING & COLLECTING	PITNEY BOWES	456.78
	ELECSYS INTERNATIONAL CORP	783-341-00	BILLING & COLLECTING	FEB 2018 MONTHLY UNS & HAR	76.00
	J & S BUSINESS FORMS	783-341-00	BILLING & COLLECTING	W2'S ENVELOPES & 1099'S	98.12
		783-341-00	BILLING & COLLECTING	UTILITY BILLS	515.07
	RAVEN ROCK NETWORKS INC	783-341-00	BILLING & COLLECTING	NEW FILTER/BLOCKER NETWOR	927.94
		783-342-00	NEW COMPUTER CAPITAL	SERVER TO USE AS BACKUP	1,000.00
	BCN TELECOM INC	783-341-00	BILLING & COLLECTING	472-1430	3.02
	AMAZON.COM	783-341-00	BILLING & COLLECTING	PCRD-LABELS	4.00
		783-341-00	BILLING & COLLECTING	PCRD-BEAL SOLUTION	10.00
		783-341-00	BILLING & COLLECTING	PCRD-DESK CALENDAR	1.25
		783-341-00	BILLING & COLLECTING	PCRD-BTENO PADS	8.35
		783-341-00	BILLING & COLLECTING	PCRD-BHDSR;FLDRS	20.50
		783-341-00	BILLING & COLLECTING	PCRD-FILE ORGANIZERS	35.00
		783-341-00	BILLING & COLLECTING	PCRD-SP CARTRDG	62.45
	TYLER TECHNOLOGIES INC	783-341-00	BILLING & COLLECTING	INSITE TRANSACTION FEE UTL	620.62
		783-341-00	BILLING & COLLECTING	UTILITY BILLING NOTIFICATI	34.62
	ROSSIGN & CO/PCB	783-341-00	BILLING & COLLECTING	DEBT COLLECTION	16.63
	SUDDENLINK	783-341-00	BILLING & COLLECTING	JANUARY 2018 INTERNET	31.24

FUND: SANITARY

DEPARTMENT	VENDOR NAME	GL ACCOUNT	ACCOUNT DESCRIPTION	DESCRIPTION	AMOUNT
				TOTAL:	4,125.88
OFFICE EXPENSE	QUILL	793-341-00	OFFICE SUPPLIES & EX	FEDERAL DESK	499.99
	MORPHO TRUST	793-341-00	OFFICE SUPPLIES & EX	BACKGROUND CHECK ALICE TEE	28.85
	STATE COMMUNICATIONS	793-341-00	OFFICE SUPPLIES & EX	PHONE & SET UP GRANT OFF.	108.00
	INTER MOUNTAIN	793-341-00	OFFICE SUPPLIES & EX	INFORMATION & GRANT WRITER	31.88
	PAYROLL ACCOUNT (ALL DEPTS)	793-341-00	OFFICE SUPPLIES & EX	JANUARY 2018 AA FEES	124.30
	COLLECTION ACCOUNT	793-341-00	OFFICE SUPPLIES & EX	CC FEES DEC 2017	657.46
	COLLAR GENERAL CORPORATION	793-341-00	OFFICE SUPPLIES & EX	CLEANING SUPPLIES	30.44
	US CELLULAR	793-341-00	OFFICE SUPPLIES & EX	642-1651 613-0113 0002	61.94
	WALMART STORES INC -BUCKHANNON	793-341-00	OFFICE SUPPLIES & EX	PCARD-INTK CARDS	57.94
	IWORK	793-341-00	OFFICE SUPPLIES & EX	WORK MANAGEMENT	311.75
	FRONTIER	793-341-00	OFFICE SUPPLIES & EX	304-472-1651-101515-4	60.99
		793-341-00	OFFICE SUPPLIES & EX	304-003-2273-060600-4	21.02
				TOTAL:	1,994.56
PROFESSIONAL	RICHARD TRENT CPA AC CORP	896-223-00	PROFESSIONAL SERVIC	SERVICES YEAR-END CLOSING	5,200.00
	THOMAS J O'NEILL	896-223-00	PROFESSIONAL SERVIC	JAN 2018 ATTORNEY FEES	1,041.67
				TOTAL:	6,241.67
BOND A	MUNICIPAL BOND COMM OF WV	970-199-00	BOND ISSUE #A	FEB 2018 BOND A PYMT	14,144.97
				TOTAL:	14,144.97
BOND B	MUNICIPAL BOND COMM OF WV	980-199-00	BOND ISSUE #B	FEB 2018 BOND B PYMT	2,253.00
				TOTAL:	2,253.00
CAPITAL/PROJECTS	J.P. MORGAN EQUIPMENT FINAN	997-451-02	BELT PRESS PROJECT	SAN JAN 2018 BELT PRESS PY	2,210.60
	RITE-WAY HEATING & PLUMBING	997-455-00	SEWER UPGRADE-CAPITA	PVC S&D RHD PVC GLUE	12.31
	ENTERPRISE FM TRUST	997-454-00	NEW EQUIPMENT-CAPITA	SAN JAN 2018 VEHICLE LEASE	534.92
	PROGRESSIVE BANK	997-454-00	NEW EQUIPMENT-CAPITA	SAN FEB 2018 DUMP TRK PYMT	1,298.57
		997-454-00	NEW EQUIPMENT-CAPITA	SAN BLASTER & BACKHOE JAN	803.03
		997-454-00	NEW EQUIPMENT-CAPITA	SAN FEB 2018 CRANE TRK PYM	1,655.65
				TOTAL:	6,515.08

Department Administrative Report-Erasmo Rizo:

E.1 Grants:

- Mr. Rizo forwarded the information regarding the REAP Grant to Grant Writer-Callie Sams to pursue.
- There is nothing new to report on the generator grant.

E.2 Personnel:

1. Request for new hire:

Mr. Rizo explained he would like to hire another line crew member. This will give each crew 4 members. He explained that 3 employees on one crew is not efficient if one of them needs to be off work. Also there is additional responsibilities of storm sewer maintenance.

The Board discussed the matter at length. During non-construction season there is not enough work for full 4-man crews. Also, full time hire requires payment of benefits which is costly. Mayor McCauley explained that the Director of Public Works has been exploring the idea of establishing a cross-trained part-time team, perhaps retired employees on a seasonal basis for extra construction work.

The Sanitary Board members decided to table the matter to further explore other possibilities rather than full-time hire.

2. Employee Training and Safety:

Most of the employees have had CPR and safety training. All employees were reviewed to ensure they have up to date hepatitis vaccinations.

3. I&I Report:

Engineer Ludlow and Mr. Rizo submitted and explained the following reports. They show several tasks completed in the past few months. The status reports help to constantly be aware of sewer infrastructure. Projects may be promoted depending on their importance and funding. The documents also prove that continued maintenance and monitoring is valuable. Nothing currently is critical.

CITY of BUCKHANNON

NPDES Permit No WV0032336 - 7/1/12

Section F - Combined Sewer System Overflows Requirement #6, Reporting Requirements

To: WV DEP

Division of Water and Waste Management 601 57th Street, SE Charleston, WV 25304

Attn: Engineering Section

Report #1 Report Period: Second Half 2017

From: Buckhannon Sewer Department

Erasmio Rizo, Superintendent Sam Ludlow, CSO Coordinator

1 MAJOR PROJECTS

1.1 MOORE AVENUE

Most of the Moore Avenue sanitary sewer upgrade and replacement project had been completed during the previous report period. Work remaining included modifications to an existing 12 inch diameter storm sewer where it conflicted with the new sanitary, grading a drainage swale to the low point, and general surface restoration. This work was accomplished early in the report period. After completion of this project, the new 15" line from Moore Avenue to Ohio Street will carry flow from Reger Hollow and the old parallel line will carry flow from Tennerton PSD west side. This will help relieve pressure at a very critical location and will help to identify the source of some extraneous flow problems.

1.2 WOOD STREET PHASE II

The previous report noted that a major project was underway to upgrade the interceptor sewer following along the west side of the Buckhannon River between Braxton Street and Ritchie Street. The first phase of this project was accomplished during the last report period and included 506 feet of eight inch gravity sewer, 130 feet of six inch gravity sewer, 650 feet of six inch force main, and three manholes. The new sewer reversed the direction of flow between Florida Street and Ritchie Street and will now discharge into the Wood/ Ritchie pump station.

Phase II was begun during this report period and will include a new 12" line from Braxton Street to Florida Street. A key part of this line was a crossing at a 48" storm sewer. There was an elevation conflict between the two pipes at this intersection. By changing the flow direction in Phase I and some other modifications, that elevation conflict was eliminated. Work on this project was interrupted after new pipe had been installed to about 40 feet past the culvert in order to address another issue. The conflict between the storm and sanitary pipelines caused serious sanitary sewer performance issues and was a likely source of extraneous flow into the sanitary sewer and sewage leakage into the storm sewer.

1.3 SWISHER/ MYRNA STREET

Swisher Street had to be closed after an old, 48" corrugated metal pipe culvert failed and started to collapse. Investigation and correction of sanitary sewer complaints near the culvert showed that the sanitary sewer crossing at the culvert had been damaged by the culvert failure. Both the sanitary sewer and the culvert had been constructed by a developer and did not take advantage of available elevation which resulted in a conflict between the culvert and the sewer. The sewer obstructed the middle of the culvert and regularly caught debris which obstructed flow through the culvert. In order to gain elevation, we had to go downstream on Myrna Street and relay 112 feet of eight inch sanitary on Myrna, turn onto Swisher and lay 111 feet of eight inch sanitary on Swisher to the culvert, and then lay 123 feet of eight inch sanitary on to the intersection with Kepner Street. This modification allowed the sanitary, encased in a ten inch steel casing, to be six inches below the bottom of the culvert, and will allow further upgrades on Kepner Street with more available elevation. All the pipe work for this sanitary upgrade was completed during this period. Some finish work on the Kepner manhole and surface restoration remain to be done during the next period. Correcting the poor design and construction of this sewer will clearly help remove extraneous flow.

The culvert has not yet been replaced and Swisher Street remains closed. That work will be done during low flow conditions in the creek this spring or summer.

1.4 BOGGESS STREET

As noted in several previous reports, a customer at 25 Boggess Street upgraded his service line and later complained about water in his yard. After a very difficult investigation, we discovered that a neighbor's sewer made a big loop around the house at 25 Boggess and tied into their service line. This connection had been removed during the upgrade and caused the wet yard. The collector sewer for these two houses was in an alley behind the houses and also served two other customers. It was an old clay tile, in a low area which often held water, and was in very poor conditions.

A project was planned to upgrade the collector sewer, pick up the all the customers independently, and construct a parallel storm sewer to relieve the drainage issues. That work was accomplished during this report period and included 395 feet of six inch collector sewer and service line, one sanitary clean out, 215 feet of 12 inch storm sewer, and two drop inlets. Having a good sanitary collector sewer along with the availability of a storm sewer will definitely remove extraneous flow from this part of the system.

1.5 LEESON DRIVE

After several years of negotiations with a local developer, Patrick Martin, with a 17 acre site at Brushy Fork, he directed the Sewer Department to proceed with construction of a sewer extension to provide service to most of the site. The immediate purpose for the extension was to provide opportunity to serve temporary connections for travel trailers used by construction workers for a proposed gas line. It was important, however, to make the design allow for permanent subdivision of the property after the construction project was complete. That objective was realized and the extension was constructed to minimize opportunity for extraneous flow. Work included 419 feet of eight inch collector sewer, 481 feet of six inch collector sewer, three standard manholes, one 21" manhole, and three cleanouts.

1.6 LANNY DOERR

Another developer, Lanny Doerr, continues to build residential units at his development at Phillip's Dairy Road. He is currently building three more units and requested an extension to provide service. The extension included 105 feet of six inch collector sewer with one clean out. Construction was performed to minimize opportunity for extraneous flow.

2 SEWER REPAIRS

2.1 27 REGER ST

A number of improvements were made in response to customer sewer complaints. One of these was at 27 Reger Street. The customer had replaced their service line with new SDR35 sewer pipe but there was still an issue. We replaced broken S & D pipe from the property line to the tap on the collector sewer. It is a very difficult location with the sanitary sewer below a storm sewer, a water line, and a gas line, which all run within a few feet of the edge of Reger Street. Replacing the broken S & D pipe will certainly eliminate a source of extraneous flow.

2.2 1 SWISHER ST

As noted above, a major project has been ongoing on Swisher Street between Myrna Street and Kepner Street. At the same time, we received repeated complaints from #1 Swisher Street which is on the far side of Kepner

Street. Problems caused by the failed culvert on Swisher Street may have contributed to this sewer complaint, but there were also issues at the customer's site. We tracked the customer service line and installed a second cleanout. We also discovered that the service line was S & D pipe. A portion of the service line was repaired where we installed the cleanout, and further replacement will be planned. Replacing substandard, broken pipe will eliminate another source of extraneous flow.

2.3 39 TUCKER ST

A complaint from 39 Tucker Street led to an investigation which showed that their service line tied into a line from 103 South Florida Street. These old, clay service lines run in a haphazard manner across private property. We installed a cleanout near the junction of the two service lines and made careful record of the new information. This information will be very valuable for a future upgrade.

2.4 106 BARBOUR ST

In response to a complaint from 106 Barbour Street, we replaced S & D pipe from the collector sewer to the property line with SDR35 sewer pipe and installed a cleanout at the property line. The S & D pipe was crushed and clearly a source of extraneous flow.

2.5 31 MEADE ST

A blocked service line at 31 Meade Street was resolved by installing a cleanout at the junction of a basement floor drain and the main sanitary service line from the house. This is an old part of town and all the sewers were clay tile. The cleanout will provide a valuable access point and information regarding system configuration.

2.6 36 CENTRAL ST

We found a failed S & D service line at this location as a result of a sewer complaint. As discussed in these repair reports, a common cause of sewer problems has been failed S & D pipe. Buckhannon's service connection standards no longer allow this type of pipe to be used for sewer service, but many customer connections made in the 1960's and 70's, were done with this pipe. In this case, we replaced the failed pipe from the collector sewer to the property line with SDR35 sewer pipe and installed a cleanout at the property line. There was an old concrete storm sewer at this same location, so there was ample opportunity for surface water to get into the sanitary sewer through the failed S & D service line.

2.7 9 BEECH ST

Another case of damaged S & D service line was encountered at this location. We replaced 15 feet of S & D pipe with SDR35 sewer pipe to get past the roadside ditch and onto the customer's property where we installed a cleanout. It is a location that needs a more complete upgrade to replace an old, poorly constructed sewer. Work load, weather, and other activity at this location prevented such an effort at this time. The work done will provide useful information for the design of an upgrade and will immediately help remove extraneous flow getting from the roadside ditch into the failed service line.

2.8 11 PARK ST

A plumber replaced about 10 feet of old clay tile which was plugged with roots at this location, but continued poor performance resulted in the Sewer Department revisiting the site and finding and replacing a damaged wye and also installing a cleanout. Having ample cleanouts is very beneficial not only in dealing with sewer blockages but also in providing information about the location and condition of the sewers. Old clay tile that is open enough to allow root penetration would certainly allow extraneous flow to enter the sewer so these repairs are clearly beneficial.

2.9 HENRY ST STORM

Old plans and field observation showed a storm drainage system between Pinnell Street and Henry Street, but did not clearly show how the drains discharged into Jawbone Run. Poor drainage performance caused us to investigate this situation, and we found that the drain discharged into an old abandoned sanitary sewer being used as a storm drain. A section of this line was so badly plugged that it could not be opened with our high pressure rodder. A vendor demonstrated a hydraulic cutter which did cut out a root mass and open the drain. This may not be a good long term solution but did relieve the drainage problems. We then cleaned the drop inlets and culverts upstream from the severe blockage. Preparations were made for a more permanent solution and the investigation identified the location of several poorly defined culverts. Poor storm water drainage puts undo pressure on the sanitary sewer system especially in locations where there are a lot of old, clay tile sewers.

2.10 WILLARD WAY STORM

Street flooding on Willard Way required several episodes of tracking and cleaning the storm sewer at that location. We did gain valuable information regarding the location and direction of flow for this system. Eventually, we used a sewer camera to investigate the condition of the sewer and found a large piece of concrete stuck in the sewer. After several attempts to dislodge the piece of concrete, we finally had to dig up and expose the storm sewer to remove the obstruction. This effort resolved the drainage problem. Although the sanitary sewers in that area are sound, having poor surface water drainage still creates unwanted pressure for extraneous flow to enter the sanitary sewer.

3 PLANT & PS

3.1 PISTA GRIT PADDLE DRIVE REPAIR

Buckhannon's preliminary treatment at its headworks includes a "Pista Grit" type vortex settling basin. The circular basin includes rotating paddles which maintains a relatively fixed velocity allowing heavy grit to settle while lighter organics remain in suspension. Settled grit is then removed from the basin by a grit pump, cyclone separator, and discharge into a dumpster. The rotating paddles and drive system are original configuration from plant construction in 1987 and most of the equipment is also original. During the past year, the shaft between the drive motor and the bull gear failed. An original equipment replacement part was not available due to

the equipment age. We found a machine shop which could fabricate the part, but that only provided short term service. Then, we had to replace the motor and the shaft with a newer part which has provided satisfactory service.

During this report period, issues with the paddles became evident. In order to diagnose the problem, we had to bypass and dewater the basin, disassemble the equipment, and remove it from the basin. The failure was identified to be the bull gear driving the paddle assembly. We replaced the bull gear and reassembled the equipment in the basin which has restored original performance.

Grit removal is critically important especially during high flow conditions due to sand and other debris that gets washed into the sewer. Having this process at full capacity allows us to perform satisfactorily during high flow conditions which is an important element of our CSO program.

3.2 CLARIFIER #1 PAINTING

Another major project was undertaken to maintain plant performance. During the dry weather common during the fall of the year, we repainted the second plant clarifier. We had painted the first clarifier during the fall of 2016 after attempting to find a painting contractor to do the work. We accomplished that task at half the cost of the lowest proposal even though our cost included purchase of a wet sand blaster and fabrication of the two scrapper arms. As we found last year, preparation for painting was the most difficult part of the job, but all of the metal equipment and the upper portion of the concrete basin were thoroughly cleaned. Multiple coats of coal tar epoxy paint were applied. New scrapper arms and a new skimmer arm were fabricated. Work began in early September and was completed by mid-October. Work was accomplished at a cost of about \$25,000 which was about 1/3 of the cost proposal provided earlier by a commercial painter. This is the second time the clarifiers have been repainted and should extend their life by a considerable amount. Again, satisfactory performance by plant unit processes is critically important to maximize hydraulic capacity during CSO events.

3.3 SOLIDS LOSS DURING HIGH FLOW

One of the plant operating functions given the most attention is minimizing solids loss during high flow events. The maintenance upgrade of the RAS screw pumps has been a major benefit to avoid solids loss. Use of both screw pumps during high flows helps avoid a sludge blanket build up. Careful attention to performance of the sludge pick up of the scrapper arms and flow through the draft tubes is also critical. If the draft tubes become obstructed with debris, sludge builds quickly in the clarifiers which can lead to solids loss if flow increases. More aggressive attention to maintaining an appropriate MLSS concentration has also helped. We believe strongly that a high mixed liquor is very beneficial to plant performance so it is a critical balance to maintain the right concentration. The combination of all the performance measures has clearly helped to minimize solids loss. It is certainly the goal to be able to reach the 5.0 MGD hydraulic capacity of the plant and still avoid solids loss.

3.4 SERVICE TRUCK

In 1998, a service truck was purchased for use by the maintenance crew. It included a 3,000 pound rated crane. This truck greatly enhanced the capability and flexibility of the maintenance crew. It allowed us to avoid a number of very dangerous activities without hiring expensive support or encountering unwanted delays. After 20 years of service the truck was beginning to show wear and, too often, it was pushed past its limits to accomplish tasks. A new, replacement truck was purchased during this period and was received in November. It is a larger truck with a higher capacity crane. It will allow us to accomplish all currently known routine tasks within a much safer performance range. Having a service truck which provides a

consolidated tool box, air compressor for air tools, generator for electric service, oxygen and acetylene tanks for cutting, welder, and crane gives the maintenance crew the capabilities they need at any location around the plant, at a pump station site, or on location of a sewer construction job. An aggressive maintenance policy has proved instrumental in achieving our objectives with our CSO program.

4. ADMINISTRATIVE

4.1 NPDES PERMIT

Buckhannon's NPDES Permit to operate the sewer system was due to expire in May 2017. A renewal application was submitted in November 2016 as required. WV DEP Permits Branch has provided three extensions until June 2018 while they process our application.

4.2 CHIEF OPERATOR

Chief Operator, Dan Baker, attended the Class IV certification class and passed the certification test during this report period. He had enough operating experience and education to qualify for his Class IV certification and is now a Class IV operator. The Buckhannon plant is rated as a Class III plant, but Baker's achievement is a testament to Buckhannon's determination to have the best possible operation.

4.3 GRANTS 1, 2, 3

Three different applications have been made to support activities to improve system capabilities. Two applications have been made to the WV Division of Homeland Security and Emergency Management; one to replace and upgrade the emergency generator at the treatment plant, and the other to upgrade emergency service at the pump station sites. No action has been taken on these grants. We remain hopeful to receive support which will help us maintain treatment performance during a power outage.

Another grant application was made to the DEP Recycling Program to develop a composting facility. Such a facility would make our solids disposal, land application system even better and help ensure a quality product leaving the plant. The grant application was denied, but we have been encouraged to resubmit for the next program cycle.

4.4 TENNERTON PSD

Tennerton's discharge into Buckhannon's system was discussed in the last report and continues to be an issue. As noted in the previous report, we have installed a meter at the Murphy Mart pump station to monitor flow from that portion of Tennerton's collection system. Results provided by that meter for 2017 are provided in the attached table. Expected flows, based on water consumption, are between 70,000 and 100,000 gpd, but actual flows are frequently much higher. During severe wet weather conditions, discharge at the pump station capacity is about 1.6 MGD which exceeds the capacity of the downstream system and creates an unmanageable load on the treatment plant.

During this period, we installed another meter at the East Side pump station and have begun to collect data on its performance. It also shows high levels of extraneous flow. Tennerton has acknowledged that their system has extraneous flow issues, but there is no evidence they have taken any corrective action. We continue to encourage them to address this issue.

4.5 RATE INCREASE

A recommendation was made by the Sanitary Board to the Buckhannon City Council during this past summer to pursue another rate increase. The City Council supported this recommendation and proceeded to employ an accountant to evaluate revenue requirements and assist with preparation of a rate case. An ordinance was adopted by City Council which

provided a ten percent rate adjustment to go into effect in September 2017 with an additional ten percent increase to go into effect in September 2018. The increase is intended to provide sufficient revenue to continue the Sewer Department's aggressive approach to maintenance and upgrade projects, and to provide financial security by adequately funding reserve requirements. This increase is critically important to continued work on Buckhannon's CSO program.

5. MONITORING

5.1 QUALITY

River sampling at five sampling points to test for fecal coliform and DO was continued during this report period. Results during 2017 are shown in the attached table, labeled WATER QUALITY TESTING. Several tests were performed during high flows when there was overflow from CSO discharges. Some of these show some potential impact to fecal coliform but others do not. There does not seem to be an impact on DO. There does seem to be a clear relationship between high river flows and higher fecal counts, but it does not seem to be clearly related to CSO events. Samples collected on November 6 showed the worst test results, particularly immediately downstream from Overflow #3, but there was no identified overflow at that point during this event. In general, tests were conducted over a broader range of conditions during the year, but the results were consistently fairly good, showing improvement over tests conducted several years ago. We still believe that contamination from general runoff during wet weather events and high flow conditions is the most significant cause of the higher fecal readings rather than any CSO event.

5.2 OVERFLOW

CSO discharge is monitored with float activated hour meters at each of the four overflow points. The overflow records for 2017 are shown on the attached table labeled 2017 OVERFLOW SUMMARY WITH QUANTITY. Amount of rainfall has a dramatic impact on sewer system flows and 2017 was a wet year with a total precipitation of 51.36 inches which is the second highest rainfall amount over the past ten years. As a result, there was a higher number of CSO events. Attached table, SUMMARY OF ANNUAL CSO OVERFLOWS, shows the comparison of overflows over the past 20 years. Another table, PLANT FLOW VS PRECIPITATION shows the relationship between rainfall and plant flow, and the estimated amount of overflow for each of the past eight years. All of this information shows how dramatically the amount of rainfall affects flow in the sewer system. There was an increase in number of CSO events, amount of overflow, and amount of flow to the plant. We still believe that significant improvements have been made to reduction of extraneous flow. Conditions described in paragraph 4.4 TENNERTON, must be addressed to help limit the CSO issues.

BUCKHANNON SEWER DEPARTMENT
PLANT FLOW vs PRECIPITATION

MONTH	2017		2016		2015		2014		2013		2012		2011		2010	
	PLANT AVG MO FLOW MGD	MONTHLY PRECIP	PLANT AVG MO FLOW MGD	MONTHLY PRECIP	PLANT AVG MO FLOW MGD	MONTHLY PRECIP	PLANT AVG MO FLOW MGD	MONTHLY PRECIP	PLANT AVG MO FLOW MGD	MONTHLY PRECIP	PLANT AVG MO FLOW MGD	MONTHLY PRECIP	PLANT AVG MO FLOW MGD	MONTHLY PRECIP	PLANT AVG MO FLOW MGD	MONTHLY PRECIP
JAN	2.329	4.89	1.483	3.58	1.983	2.10	1.853	2.88	1.833	4.87	1.788	2.87	1.883	2.89	1.768	3.88
FEB	1.378	2.18	2.001	2.86	1.221	2.29	2.218	4.49	1.880	1.84	1.481	4.02	1.837	3.79	1.748	3.84
MAR	1.847	3.81	1.348	2.51	1.897	4.87	1.478	2.84	1.733	3.43	1.541	3.14	2.433	6.73	1.814	2.33
APRIL	1.484	4.13	1.374	3.78	1.888	7.00	1.823	2.58	0.981	1.85	0.778	2.11	2.447	7.70	1.033	2.32
MAY	1.833	6.19	1.496	5.18	0.901	2.24	1.888	4.18	0.917	3.70	1.339	4.89	1.483	4.87	1.278	6.29
JUNE	0.948	3.87	1.195	5.87	1.192	6.13	1.106	6.33	1.887	6.73	0.880	2.89	0.923	4.38	1.003	4.85
JULY	1.836	8.47	1.497	7.36	1.389	6.44	0.947	6.18	1.212	4.32	1.115	0.51	0.774	3.48	0.840	6.29
AUG	1.386	4.27	0.843	1.83	0.825	3.85	0.874	3.45	1.152	5.66	1.139	3.30	0.898	4.64	1.027	4.84
SEPT	0.982	2.25	0.733	0.75	0.711	3.02	0.718	1.81	0.750	2.03	1.183	5.51	1.483	7.44	0.871	4.08
OCT	1.349	6.87	1.108	5.81	0.803	2.31	1.200	0.87	0.798	1.87	1.181	6.08	1.882	8.14	0.985	2.78
NOV	1.885	2.90	0.817	1.81	0.848	2.27	0.896	1.85	1.888	1.18	1.232	0.81	1.728	4.75	1.235	2.93
DEC	1.225	2.48	1.894	8.48	1.889	4.00	1.148	4.03	2.113	8.65	2.871	8.20	1.880	3.84	1.430	2.10
TOTAL	17.800	81.38	18.187	48.88	13.934	47.32	14.094	44.31	14.896	43.43	18.288	48.83	18.180	88.31	18.202	42.70
AVG	1.488	4.28	1.348	3.98	1.181	3.94	1.178	3.89	1.241	3.62	1.272	4.14	1.880	4.94	1.267	3.64
ANNUAL PLANT FLOW	532.29		492.35		423.83		428.89		452.09		464.34		583.38		482.38	
ANNUAL OVER FLOW	27.80		21.70		21.40		15.30		18.80		28.20		27.80		18.60	
% OVER FLOW	4.830		4.221		4.807		3.448		3.896		6.311		8.068		2.241	

MURPHY MART FLOW METER
TENNERTON PSD
2017 FLOWS

WEEK ENDING	READING	FLOW GAL/ WK	DATE	READING	FLOW GAL/ WK
1/2/18	81,656,640	851,120	6/27/17	53,420,632	1,140,700
12/26/17	80,805,520	2,479,648	6/20/17	52,279,932	752,660
12/19/17	78,325,872	697,448	6/13/17	51,627,272	689,988
12/12/17	77,628,424	790,496	6/6/17	50,937,304	674,340
12/5/17	76,837,928	686,088	5/30/17	50,262,964	1,063,888
11/28/17	76,161,840	752,928	5/23/17	49,199,076	739,756
11/21/17	75,388,812	905,112	5/16/17	48,459,320	1,177,336
11/14/17	74,493,800	2,098,360	5/9/17	47,281,884	1,706,488
11/7/17	72,395,440	1,402,832	5/2/17	45,575,496	959,540
10/31/17	70,992,608	1,549,063	4/25/17	44,815,956	983,084
10/24/17	69,443,545	1,009,321	4/18/17	43,632,872	844,400
10/17/17	68,434,224	838,832	4/11/17	42,788,472	1,367,100
10/10/17	67,595,392	782,244	4/4/17	41,421,372	1,514,184
10/3/17	66,813,148	611,116	3/28/17	39,907,188	1,115,432
9/28/17	65,202,032	635,682	3/21/17	38,791,756	1,063,296
9/19/17	65,566,450	716,374	3/14/17	37,728,460	1,194,580
9/12/17	64,850,076	1,038,712	3/7/17	36,533,880	974,344
9/5/17	63,811,364	689,740	2/28/17	35,559,536	785,800
8/29/17	63,121,624	700,136	2/21/17	34,803,736	875,700
8/22/17	62,421,488	1,210,389	2/14/17	33,928,036	1,538,588
8/15/17	61,211,089	1,184,603	2/7/17	32,391,450	1,028,838
8/8/17	60,026,496	1,087,972	1/31/17	31,362,612	1,136,514
8/1/17	58,838,524	1,712,648	1/24/17	30,226,098	1,486,912
7/25/17	57,225,876	1,357,984	1/17/17	28,728,188	3,754,706
7/18/17	55,867,892	955,592	1/10/17	24,874,480	3,258,492
7/11/17	54,912,300	886,620	1/3/17	21,715,988	
7/4/17	54,025,680	605,048			

**BUCKHANNON SEWER DEPARTMENT
WATER QUALITY TESTING**

DATE	PRECIP	RIVER GAGE HALL BRIDGE FEET	ELIAS OVERFLOW HOURS	SITE 1		SITE 2		SITE 3		SITE 4		SITE 5	
				POE BRIDGE FECAL	DO	FLORIDA ST FECAL		FINKS RUN FECAL		CLEVELAND BR FECAL	DO	HALL ROAD FECAL	
1/4/17	0.93	17.0	40.0	360	10.60	1,400		1,550		1,950	10.50	440	
1/17/17	1.31	10.1	37.6	380	10.70	2,800		2,100		2,550	10.60	560	
2/7/17	0.02	5.9	0.0	10	12.60	260		60		60	11.90	30	
2/22/17	0.00	5.3	0.0	30	10.60	180		140		220	10.40	70	
3/14/17	0.21	6.5	0.0	40	11.70	80		120		140	12.30	50	
3/27/17	0.85	7.7	0.0	140	9.30	240		300		220	9.50	160	
4/3/17	0.70	10.0	0.0	60	8.40	180		100		240	8.50	70	
4/28/17	0.79	7.0	2.9	30	7.60	100		60		300	7.30	20	
5/9/17	1.63	8.7	17.2	80	10.60	180		180		260	10.20	110	
5/15/17	0.67	6.3	0.0	110	9.60	160		140		180	9.70	130	
6/14/17	0.00	4.1	-0.0	120	5.10	160		220		120	5.60	160	
6/30/17	0.00	7.8	0.0	160	7.90	220		260		140	7.20	180	
7/11/17	0.17	4.7	0.0	120	6.30	460		700		600	6.50	140	
7/27/17	0.00	4.7	0.0	90	6.68	240		300		320	6.64	120	
8/7/17	0.97	4.7	21.3	250	6.90	820		920		760	7.20	310	
8/23/17	0.07	4.5	0.0	70	7.13	240		260		200	6.97	90	
9/18/17	0.00	3.8	0.0	90	6.80	460		300		200	6.40	130	
9/25/17	0.00	3.6	0.0	50	6.20	540		280		180	5.90	70	
10/10/17	0.17	4.5	0.0	70	7.20	180		240		160	6.90	110	
10/31/17	1.58	8.4	12.5	120	11.30	260		220		180	11.30	140	
11/6/17	0.97	7.9	12.3	720	9.50	10,550		5,300		4,800	8.90	1,940	
11/20/17	0.00	4.8	0.0	10	13.20	60		0		20	12.70	10	
12/12/17	0.00	4.7	0.0	80	10.30	120		180		140	10.00	120	
12/19/17	0.07	4.6	0.0	110	9.50	160		180		140	9.40	130	

NOTES
 1. Fecal tests results are colonies/ 100ml
 2. Not all test results were in recommended colony range
 3. Precipitation for three preceding days

**CITY OF BUCKHANNON
2017 OVERFLOW SUMMARY WITH QUANTITY**

DATE	PRECIP	MONTHLY PRECIP	ELIAS 003 OVERFLOW HOURS	FLOW MG	EAST MAIN 004 OVERFLOW HOURS	FLOW MG	VICKSBURG 008 OVERFLOW HOURS	FLOW MG	WOOD R 006 OVERFLOW HOURS	FLOW MG	
1	30-Dec - 3-Jan	0.85	4.85	1.5	0.85	0.00	0.0	0.00	0.0	0.00	
2	3-5 Jan	0.89		40.0	1.54	0.0	24.1	0.84	0.0	4.00	
3	10-13 Jan	0.94		10.5	0.24	1.6	13.1	0.36	0.0	0.00	
4	13-17 Jan	1.44		37.6	1.43	16.6	41.1	1.58	0.0	0.00	
5	17-20 Jan	0.17		8.5	0.12	0.0	7.9	0.17	0.0	0.00	
6	25-24 Jan	0.53		2.9	0.06	0.4	4.1	0.06	0.0	0.00	
7	10-Feb	0.61	2.18	3.3	0.07	0.0	0.0	0.00	0.0	0.00	
8	15-Feb	0.86		29.9	1.09	12.1	27.1	0.97	1.3	0.03	
9	28-Feb	0.39		1.6	0.04	0.0	0.0	0.00	0.0	0.00	
10	10-Mar	1.00	3.61	13.3	0.36	0.0	16.3	0.45	0.0	0.00	
11	26-Mar	0.68		14.0	0.39	1.6	9.4	0.21	0.0	0.00	
12	31-Mar	0.39		0.0	0.00	0.0	4.4	0.10	0.0	0.00	
13	4-Apr	0.72	4.13	4.8	0.11	0.0	6.8	0.15	0.0	0.00	
14	7-Apr	0.64		0.0	0.00	0.0	1.3	0.03	0.0	0.00	
15	18-Apr	0.81		2.0	0.04	0.0	0.9	0.02	0.0	0.00	
17	25-Apr	1.20		2.9	0.08	0.0	3.8	0.08	0.0	0.00	
18	2-May	0.89	6.19	6.6	0.16	3.0	6.7	0.12	0.0	0.00	
19	6-May	2.12		17.2	0.53	14.5	24.3	0.85	0.0	0.00	
20	26-May	1.61		9.1	0.20	1.7	3.8	0.08	0.0	0.00	
21	16-Jun	1.32	3.97	4.5	0.18	1.8	0.0	0.00	0.0	0.00	
22	23-Jun	1.42		6.9	0.13	3.6	0.0	0.00	0.0	0.00	
23	27-Jun	0.99		14.9	0.43	5.2	9.7	0.21	0.0	0.00	
24	6-7 July	1.50	8.47	4.8	0.11	3.4	0.0	0.00	0.0	0.00	
25	12-Jul	1.08		6.6	0.14	4.5	2.9	0.06	0.0	0.00	
26	14-15 July	0.64		4.4	0.10	2.3	0.0	0.00	0.0	0.00	
27	23-25 July	2.18		19.4	0.83	10.6	24.8	0.87	1.5	0.03	
28	28-Jul	0.75		6.8	0.14	0.0	2.6	0.06	0.0	0.00	
29	28-30 July	1.76		32.1	0.13	0.0	32.5	1.21	0.0	0.00	
30	3-Aug	0.92	4.27	21.3	0.72	0.7	14.0	0.26	0.0	0.00	
31	15-Aug	1.95		10.2	0.25	1.5	12.7	0.34	1.5	0.03	
32	Sept		2.25								
33	9-9 Oct	1.64	5.87	2.2	0.05	0.0	0.0	0.00	0.0	0.00	
34	24-Oct	1.78		11.6	0.28	0.7	7.3	0.16	0.0	0.00	
35	29-30 Oct	1.58		12.6	0.33	0.0	24.0	0.83	0.0	0.00	
36	4-8 Nov	0.97	2.60	12.3	0.31	0.0	15.4	0.48	0.0	0.00	
37	7-8 Nov	1.16		12.8	0.34	0.0	27.3	0.96	0.0	0.00	
38	23-25 Dec	1.75	2.48	15.0	0.44	0.0	38.1	1.45	0.0	0.00	
TOTAL			81.36								
TOTAL OVERFLOW MG		27.6			12.21		2.22		13.11		0.09
TOTAL EVENTS			27		6		22		0		0.09
TIME			402.5		86.7		404.1		4.3		
% OF TIME		2.56%	4.99%		0.89%		4.61%		0.03%		

Overflow quantity is based on Manning formula for overflow pipe flowing half full for first 10 hr of overflow and flowing full for any overflow time over 10 hr.
 * Overflows are discounted during times when the flow is above 16 feet because back pressure exceeds overflow pressure
 Overflows less than 4 hours are discounted in the TOTAL EVENTS

**BUCKHANNON SEWER DEPARTMENT
SUMMARY OF ANNUAL CSO OVERFLOWS**

YEAR	PRECIP IN	TOTAL		RATIO OVERFLOW		ELIAS 003 OVERFLOW		EAST MAIN 004 OVERFLOW		VICKSBURG 008 OVERFLOW		WOOD R 006 OVERFLOW					
		% TIME	QUANT MG	MAX #	TO PRECIP	#	% TIME	QUANT MG	#	% TIME	QUANT MG	#	% TIME	QUANT MG			
2017	61.36	2.56	27.60	27	0.84	27	4.59	12.21	6	0.89	2.22	22	4.81	13.11	0	0.06	0.09
2016	48.66	1.89	21.70	17	0.47	17	3.85	11.22	4	0.88	2.38	7	2.76	8.06	0	0.00	0.00
2015	47.72	1.87	21.40	14	0.45	14	3.60	11.55	11	1.86	3.66	9	1.88	5.49	2	0.23	0.28
2014	44.31	1.37	16.30	12	0.35	12	2.17	6.01	6	1.10	2.78	6	2.12	6.36	1	0.07	0.15
2013	43.43	1.50	16.90	10	0.30	10	2.81	7.24	8	1.45	3.72	6	1.78	5.45	2	0.25	0.64
2012	48.83	1.47	14.90	18	0.30	16	2.44	6.48	12	1.81	4.64	12	1.80	3.53	0	0.05	0.10
2012	48.83	2.26	26.20	16	0.83	16	4.04	12.42	13	2.84	6.60	13	1.66	5.08	0	0.05	0.10
2011	88.88	3.26	37.80	28	0.83	28	6.86	18.36	21	3.89	10.36	17	3.01	7.66	2	0.26	0.46
2010	43.36	1.18	10.60	13	0.24	13	2.01	4.88	11	1.39	3.66	11	1.26	2.87	0	0.00	0.00
2009	48.76	2.10	23.80	14	0.80	14	3.46	10.22	12	2.46	7.39	10	2.26	6.26	0	0.00	0.00
2008	45.11	2.32	24.80	18	0.84	18	3.17	8.98	11	1.84	4.62	16	3.26	8.81	5	0.61	1.31
2007	48.31	1.86	19.60	19	0.48	16	2.34	6.04	12	1.82	2.87	19	2.27	6.61	16	1.80	5.03
2006	44.14	1.33	16.14	13	0.34	12	1.78	5.09	1	0.66	0.10	13	1.83	5.18	8	1.88	4.77
2005	47.50	1.83	17.21	17	0.36	16	2.03	6.47	6	0.48	1.03	17	2.81	7.87	14	1.21	3.14
2004	59.78	2.80	26.84	21	0.48	21	3.27	8.36	9	1.82	2.78	21	3.80	10.17	21	2.62	6.46
2003	61.54	4.41	52.28	35	0.85	31	4.89	14.73	18	2.70	7.86	35	7.87	23.51	22	2.27	6.07
2002	51.21	4.31	55.99	30	1.08	22	4.38	13.24	30	6.76	18.21	24	6.26	16.93	17	1.84	4.21
2001	40.86	3.20	37.37	27	0.91	24	4.35	12.84	27	4.53	13.83	12	1.78	4.91	27	2.28	5.99
2000	43.88	4.58	56.80	28	1.34	26	6.56	20.56	15	4.94	16.26	11	3.32	7.03	16	3.48	6.83
1999	39.65	3.85	45.89	20	1.18	12	5.11	16.23	20	4.73	16.32	14	4.41	14.32	20	2.36	6.82
1998	46.80	6.01	78.88	26	1.58	18	7.28	24.72	23	6.28	20.80	26	7.37	24.30	23	3.14	8.28

2012 results excluding Sandy. Not only was the storm unusual but a pump at Elias & E Main went down.
 All overflow duration data is based on float activated time clocks unless noted otherwise.
 Overflow quantity is based on Manning formula for overflow pipe flowing half full for first 10 hr of overflow and flowing full for any overflow time over 10 hr.
 X - Renovated PB | Y - Flow diverted from Mon PB | E - Estimated

4. Pump Station Operation Status:

**BUCKHANNON SEWER DEPARTMENT
PUMP STATION OPERATION STATUS
February 2018**

PUMP STATION	REPAIR/UPGRADE	STATUS	SCOPE	PRIORITY	NEEDS
1 ELIAS					
	Built 1961, Upgrade 1987, 2000, 2013				
Site		OK			
Wet Well		OK			
Valve Vault		Need Work	Major	Medium	Upgrade structure, replace valves
Control Panel		Need Work	Major	Medium	Replace panel & elect gear
Pumps		OK			
Force Main		Concern	Major	High	Monitor
Generator		Old	Moderate	Medium	Replace generator
Alarm		OK			
2 VICKSBURG					
	Built 1987, Upgrade 2003				
Site		?			
Wet Well		Need Work	Minor	Medium	Rewire junction box
Valve Vault		Need Work	Major	Medium	
Control Panel		Need Work	Major	Medium	Replace panel & elect gear
Pumps		OK			
Force Main		Concern	Major	High	Monitor
Generator		Old	Moderate	Medium	Replace generator
Alarm		OK			
3 EAST MAIN					
	Built 1961, Upgrade 1987, 2002				
Site		OK			
Wet Well		OK			
Valve Vault		OK			
Control Panel		Need Work	Major	Medium	Replace panel & elect gear
Pumps		OK			
Force Main		OK			
Generator		Old	Moderate	Medium	Replace generator
Alarm		OK			

**BUCKHANNON SEWER DEPARTMENT
PUMP STATION OPERATION STATUS
February 2018**

PUMP STATION	REPAIR/UPGRADE	STATUS	SCOPE	PRIORITY	NEEDS
4 BROOKE ST					
	Built 2014				
Site		OK			
Wet Well		Good			
Valve Vault		Good			
Control Panel		Good			
Pumps		OK	Moderate	Low	Need spare pump
Force Main		Good			
Generator		Need Work	Moderate	Medium	Need generator
Alarm		OK			
5 WOOD/ RITCHIE					
	Built 1961, Upgrade 1987, 2008				
Site		Need Work	Medium	Low	Paint, repairs to building including roof
Wet Well		OK			
Valve Vault		Good			
Control Panel		Good			
Pumps		Need Work	Minor	Low	Need spare pump
Force Main		Good			
Generator		Old	Minor	Medium	Replace generator
Alarm		OK			
6 MON					
	Built 1987, Upgrade 2005				
Site		OK			
Wet Well		OK			
Valve Vault		OK			
Control Panel		OK			
Pumps		Need Work	Minor	Low	Need spare pump
Force Main		OK			
Generator		None			Need permanent conn for portable generator
Alarm		None			

**BUCKHANNON SEWER DEPARTMENT
PUMP STATION OPERATION STATUS
February 2018**

PUMP STATION	REPAIR/UPGRADE	STATUS	SCOPE	PRIORITY	NEEDS
7 ISLAND AVE					
	Built 1987		Major	Medium	Redo pump station
Site		Concern			
Wet Well		Concern			
Valve Vault		Concern			
Control Panel		Concern			
Pumps		Concern			
Force Main		Concern			
Generator		None			Need permanent conn for portable generator
Alarm		None			
8 DEANVILLE					
	Built 1987, Upgrade 1997, 2005			Medium	Redo pump station
Site		Concern			
Wet Well		Concern			
Valve Vault		Concern			
Control Panel		Concern			
Pumps		Concern			
Force Main		Concern			
Generator		None			Need permanent conn for portable generator
Alarm		None			
9 MADISON					
	Upgrade 1989		Major	Medium	Redo pump station
Site		Concern			
Wet Well		Concern			
Valve Vault		Concern			
Control Panel		Concern			
Pumps		Concern			
Force Main		Concern			
Generator		None			Need permanent conn for portable generator
Alarm		None			

**BUCKHANNON SEWER DEPARTMENT
PUMP STATION OPERATION STATUS
February 2018**

PUMP STATION	REPAIR/ UPGRADE	STATUS	SCOPE	PRIORITY	NEEDS
10	TJM	Built 1994			
	Site	OK			
	Wet Well	OK			
	Valve Vault	OK			
	Control Panel	OK			
	Pumps	OK			
	Force Main	OK			
	Generator	None	Minor	Medium	Need permanent conn for portable generator
	Alarm	None			
11	WESTON ROAD	Built 1997			
	Site	OK			
	Wet Well	Good			
	Valve Vault	Good			
	Control Panel	Need Work	Minor	Medium	Replace disconnect
	Pumps	Need Work	Minor	Medium	Need spare pump
	Force Main	Good			
	Generator	None	Minor	Medium	Need permanent conn for portable generator
	Alarm	None			
12	WBUC ROAD	Built 2000			
	Site	Need Work	Minor	Medium	Complete repair to entrance road
	Wet Well	Good			
	Valve Vault	Good			
	Control Panel	Good			
	Pumps	Need Work	Minor	Medium	Need spare pump
	Force Main	Good			
	Generator	None	Minor	Medium	Need permanent conn for portable generator
	Alarm	None			

**BUCKHANNON SEWER DEPARTMENT
PUMP STATION OPERATION STATUS
February 2018**

PUMP STATION	REPAIR/ UPGRADE	STATUS	SCOPE	PRIORITY	NEEDS
13	BRUSHY FORK	Built 1999			
	Site	Need Work	Minor	Medium	Regrade bank around site
	Wet Well	Good			
	Valve Vault	Good			
	Control Panel	Good			
	Pumps	Need Work	Minor	Medium	Need spare pump
	Force Main	Good			
	Generator	None			
	Alarm	None			
14	LANDFILL	Built 2003, Upgrade 2018			
	Site	OK			
	Wet Well	OK			
	Valve Vault	OK			
	Control Panel	Good			
	Pumps	Good			
	Force Main	OK			
	Flow Meter	Need Work	Minor	Medium	Repair totalizer
	Generator	None			
	Alarm	None			
15	RT 20 NORTH	Built 2008			
	Site	Need Work	Minor	Medium	Drainage, rerock road
	Wet Well	Good			
	Valve Vault	Good			
	Control Panel	Good			
	Pumps	Need Work	Minor	Medium	Need spare pump
	Force Main	Good			
	Generator	None	Minor	Medium	Need permanent conn for portable generator
	Alarm	None			

**BUCKHANNON SEWER DEPARTMENT
PUMP STATION OPERATION STATUS
February 2018**

PUMP STATION	REPAIR/ UPGRADE	STATUS	SCOPE	PRIORITY	NEEDS
16	INDUSTRIAL PARK	Built 2010			
	Site	Need Work	Minor	Medium	Clean up at site
	Wet Well	Good			
	Valve Vault	Good			
	Control Panel	Good			
	Pumps	Good			
	Force Main	Good			
	Generator	None			
	Alarm	None			

5. Buckhannon Plant Operation Status:

PLANT OPERATION STATUS
January 2018

	UNIT	REPAIR/ UPGRADE	STATUS	SCOPE	PRIORITY	NEEDS
I. PISTA GRIT/ INFLUENT						
	A. Bar Rack		Good	Major	Low	Upgrade to automatic
	B. Vortex Separator		Good			
	C. Grit Pump	2005	Good			
	D. Cyclone	2015	Good			
	E. Auger	2015	Good			
	F. Flow Vanes		Need Work	Minor	High	Secure
	G. Parshall Flume		OK		Low	Reduce size to 12" to improve accuracy
	H. Debris Strainer	2015	Need Work	Minor	Medium	Rework for larger holes
	I. Sludge Dump	2015	Good			
	J. Basin/ Building	2015	OK	Minor	Medium	Repaint interior
	K. Electric	2015	Good			
II. SPLITTER BOX						
			OK	Minor	Medium	Replace stop plates
III. REACTOR BASINS/ OXIDATION DITCHES						
	A. Aerators (one to eight)					
	1. Motors		Good			
	2. Gear Boxes		Good			
	3. Shafts		Good			
	B. Paddles	2001,03,04	Need Work	Moderate	Low	Replace some paddles
	C. Catwalks	2012,13	Need Work	Minor	Medium	Finish painting
	D. Pits		OK			
	E. Effluent Weir & Baffle		Need Work	Minor	Medium	Secure or replace baffle
	F. Basin		Good	Major	Low	Drain and inspect
	G. Electric		OK			
IV. SPLITTER BOX						
	A. Stop Gates		Need Work	Moderate	High	Rework slide grooves to improve performance

BUCKHANNON SEWER DEPARTMENT
PLANT OPERATION STATUS
January 2018

	UNIT	REPAIR/ UPGRADE	STATUS	SCOPE	PRIORITY	NEEDS
	B. Basin		Good			
V. CLARIFIERS						
	A. Skimmer/ Scrappers	2016/17	Need Work	Minor	High	Correct #1 attachment, Fabricate new skimmer for #2
	B. Influent Pipe		OK			
	C. Rotating Structure	2016/17	OK			
	D. Baffles/ Weirs	2016/17	Good	Moderate	Low	Add center baffle to #2
	E. Catwalk	2016/17	Good			
	F. Basin		Good			
	G. Electric		OK			
VI. RAS/ SCREW PUMPS						
	A. Augers	2017	Good			
	B. Motors/ Gear Boxes		Good			
	C. Grease Pumps	2017	Good			
	D. Stop Gates		Need work	Moderate	Low	Rework slide gate
	E. Basin		Good			
	F. Electric		OK			
VII. SLUDGE PUMP STATION						
	A. Pumps		OK	Moderate	Medium	Prepare to replace old pumps?
	B. Ventilation		OK			Prepare to replace old blower
	C. Basin		Good			
	D. Electric	2011	OK			
VIII. SLUDGE STORAGE/ DECANT TANK						
	A. Blower Building	2000	OK	Minor	Low	Reroof
	B. Blowers	2000/07	OK			
	C. Piping & Valves	2000	Need Work	Minor	Medium	Replace butterfly valves with ball valves

BUCKHANNON SEWER DEPARTMENT
PLANT OPERATION STATUS
January 2018

	UNIT	REPAIR/ UPGRADE	STATUS	SCOPE	PRIORITY	NEEDS
	D. Diffusers	2000	Need Work	Minor	High	Replace old, damaged diffusers
	E. Basin		Need Work	Minor	High	Patch & paint interior wall
	F. Electric	2000	OK			
IX. SLUDGE DRYING/ BELT PRESS						
	A. Belt Press	2012	Good			
	B. Auger	2012	Need Work	Minor	Medium	Improve auger performance
	C. Auxiliary Equip (sludge pump, booster pump, polymer feed)	2012	Good	Minor	Medium	Change electric service to scales
	D. Building	2012	Good			
	E. Electric	2012	Good			
X. DRIED SLUDGE STORAGE						
	A. Building	2013	Need Work	Minor	Medium	Clean roof, paint steel
	B. Plates		OK	Minor	Medium	Patch as required
XI. POST AERATION						
	A. Aerator	2012	OK	Minor	Medium	Need back up aerator
	B. Plant Capacity Pump	2004	OK	Minor	Medium	Need back up pump
	C. Basin		Good			
	D. Electric		OK			
XII. DISINFECTION/ ULTRA VIOLET						
	A. Lamps and Ballasts	1996,2001	OK	Minor	High	Replace lamps as necessary
	B. Boxes and tubes	1990,2001	Need Work	Major	High	Upgrade units
	C. Basement		OK			
	D. Electric	1996, 2001	OK			

**BUCKHANNON SEWER DEPARTMENT
PLANT OPERATION STATUS
January 2018**

UNIT	REPAIR/ UPGRADE	STATUS	SCOPE	PRIORITY	NEEDS
XIII. EFFLUENT WET WELL/ EMERGENCY EFFLUENT PUMPS					
A. Pumps & piping	2015	Good	Minor	Low	Repaint piping
B. Basin		OK			
C. Electric	2015	Good			
XIV. OUTFALL/ CASCADE					
A. Flapper	2008	OK	Moderate	Low	Replace with duck bill
B. Cascade	2008	OK	Moderate	High	Upgrade outfall #2
XV. SERVICE WATER SYSTEM					
A. Pumps and Bladder Tank		Need work	Major	Medium	Upgrade and relocate
B. Distribution System		Need work	Major	Medium	Test and repair distribution system & yard hydrants
XVI. PLANT DRAINAGE PS #1					
A. Pumps	2002	OK	Minor	Medium	Need back up pump
B. Basin		OK			
C. Electric		Needs work	Moderate	Medium	Replace electric control panel
XVII. PLANT DRAINAGE PS #2					
A. Pumps	2014	Good			
B. Basin	2014	Good			
C. Electric		Good			
XVIII. SURFACE WATER DRAINAGE					
A. DI's & Culverts		Need Work	Moderate	Medium	Need to replace selected culverts
B. Outfalls	2012	OK			
XIX. CONTROL BUILDING					
A. Building	2009	Good	Moderate	Low	Repaint

**BUCKHANNON SEWER DEPARTMENT
PLANT OPERATION STATUS
January 2018**

UNIT	REPAIR/ UPGRADE	STATUS	SCOPE	PRIORITY	NEEDS
B. Roof	2009	Good			
C. HVAC	2017	Good			
D. Interior (lunch room, personnel room, offices, E. Lab		OK	Moderate	Medium	Misc renovations and maintenance
F. Plumbing		OK	Moderate	Low	Improve access to bathroom plumbing drains
XX. GARAGE					
A. Building	2006	OK	Moderate	Medium	Selective repaint & renovate
B. Air Compressor	2007	Good			
C. HVAC	2006	OK	Minor	Medium	Replace office AC
D. Tools (lift, press, welder)	varies	Good			
XXI. STORAGE					
A. Old polymer building		OK	Minor	Low	Improve drainage on west side
B. Trailer		OK			Sort and organize
C. Pole Building	2011	OK	Minor	Low	Sort and organize, electric service
D. Storage Yard		OK	Moderate	Medium	Construct shade sheds for pipe storage
E. Top Soil Storage	2013	Good			
F. Hay Storage Trailer	2015	OK			
G. Junk Storage		Need Work	Minor	Medium	Sort and organize
XXII. PIPING					
A. Basin Drains		OK			Monitor
B. Process Piping		OK			
XXIII. DEBRIS PIT					
		Need Work	Minor	Low	Renovate
XXIV. ELECTRICAL SYSTEM/ EMERGENCY GENERATOR					

**BUCKHANNON SEWER DEPARTMENT
PLANT OPERATION STATUS
January 2018**

UNIT	REPAIR/ UPGRADE	STATUS	SCOPE	PRIORITY	NEEDS
A. Electric Control Center Electrical Gear		OK			Monitor old gear
B. Transformers (ECC, Garage, Bell Press)		OK			Monitor old gear
C. Wiring Distribution		OK			Monitor performance
D. Generator		Need Work	Major	High	New generator and rework transfer switch
XXV. PLANT SITE					
A. Yard		OK			Drainage
B. Parking		OK			
C. Roads		OK	Major	Low	Repave
D. Fence		OK			
E. Handrail		OK			

6. Historical Project Completion Percentage:

Mr. Ludlow submitted a map of the core sewer system. It indicated decade of system development. Older lines are targeted to eventually be replaced which removes I&I. There is 61 miles of sewer lines. 50% of them are over 30 years old.

F. Sanitary Sewer

Completed Projects:

- 1. Stairs at a project on Camden Avenue**
- 2. 34 Shawnee sewer tap completed.**

Work in Progress:

- 1. Swisher Culvert/sewer- Project is complete except for the culvert.**
- 2. Manhole; Collection System; trouble areas- Meade St drain and Morgan Ave 12 ft deep manhole needs replaced.**

Planning Projects Sanitary Sewer Work List:

- 1. Corridor H- South Extension:** Waiting on land owner (J F Allen) to follow up on status of right of way and project.
- 2. Citizens Bank, Storm water and sewer relocation-** Located on Madison Street across from Jawbone Park. This is a large scope of work in which the new owner (Citizen Bank) have asked to move a 48 inch storm line and 10 inch sewer line. Citizen's would like to build a new building. No site design has been reviewed yet.

G. Storm water:

Completed Projects:

- 1. Storm Water Inlet Jawbone Park:** Crews installed drainage in an area that stays wet, six months out of the year.
- 2. Culvert Removal:** A potential hazard for flooding on Swisher St. Culvert was removed.
- 3. Storm water Tap on CCWV and Orion Buildings-** Project no complete. This is a small project but complex due to all the utilities in the area.
- 4. Sidewalk repair-**Crews tied up some work with sidewalks and driveways.

Work In Progress:

- 1. Huffman Alley Improvements-** Work continues
- 2. Swisher Culvert/sewer-** Culvert needs installed.

Planning Projects Storm Sewer Work List:

- 1. Storm Water Manual and Details-Step B-Permitting/ inspection/ enforcement-** Mr Rizo reported he is still working on the storm water manual standards.
- 2. Storm Water Billing:** Mr. Rizo reported that General Fund committed \$50,000 toward storm water however, the most recent billing will deplete those funds. Board members discussed storm water fees or other means of generating funds for storm water work.

Plant:

- 1. Tests**



Applicant:	BUCKHANNON, CITY OF	Type:	Electronic DMR
Reference ID:	WV0032336Jan.2018 (02/14/2018)	Permit ID:	New/Pending
eDMR Worksheet -	WV0032336 - 001		
Status:	New	Printed:	Feb. 14, 2018 12:53 PM

Permit: WV0032336 Outlet No: 001 Type: Normal
 Request for the Month of: January Year: 2018

Plant

Lab Performing Analysis: 153 - BUCKHANNON WASTEWATER TREATMENT

Parameter	Value/Limit	Usability				Other Units				Flashes Exceed	Measurement Frequency	Sample Type	Lab Test Flag		
		Avg	Max	Units	Flashes Exceed	Min	Avg	Max	CEL*						
5054 (ML-R) RF-A Flow in Conduit Or Treatment Plant Year Round	Reported Permit Limits	N/A N/A	N/A N/A			N/A N/A	1.042 Rpt Only Avg. Month	4.451 Rpt Only Max. Daily			mgd	0	Continuous Continuous	measured	153
2010 (ML-R) RF-A Water Now 1-June 30	Reported Permit Limits	52.0 Avg. Month	77.0 Max. Daily	Lbs/Day	0	N/A	4.0 Avg. Month	9.8 Max. Daily			mg/l	0	1/week 1/week	8 hr comp	153
22530 (ML-R) RF-A Suspended Solids, Total Year Round	Reported Permit Limits	41.5 Avg. Month	117.1 Max. Daily	Lbs/Day	0	N/A	4.3 Avg. Month	7.0 Max. Daily			mg/l	0	1/week 1/week	8 hr comp	153
51012 (ML-R) RF-A BOD5 Percent Removed, Dry Year Round	Reported Permit Limits	N/A N/A	N/A N/A			N/A N/A	N/A N/A	85 Month Avg			Percent	0	5 times/month 4/4/3/3/3	Calculated	153
51013 (ML-R) RF-A BOD5 Percent Removed, Wet Year Round	Reported Permit Limits	N/A N/A	N/A N/A			N/A N/A	N/A N/A	Rpt Only Month Avg			Percent		4/4/3/3/3 4/4/3/3/3	Calculated	No Flow 153
51014 (ML-R) RF-A Suspended Percent Removal Dry Year Round	Reported Permit Limits	N/A N/A	N/A N/A			N/A N/A	N/A N/A	85 Month Avg			Percent	0	5 times/month 4/4/3/3/3	Calculated	153
51015 (ML-R) RF-A Solids, Suspended Percent Removal Wet Year Round	Reported Permit Limits	N/A N/A	N/A N/A			N/A N/A	N/A N/A	Rpt Only Month Avg			Percent		4/4/3/3/3 4/4/3/3/3	Calculated	No Flow 153
74000 (ML-A) RF-A Calcium, Fecal Year Round	Reported Permit Limits	N/A N/A	N/A N/A			N/A N/A	13 Rpt Only Month Avg	34 Max. Daily			Cnts/100ml	0	1/week 1/week	Grab	153
02400 (ML-A) RF-A PH Year Round	Reported Permit Limits	N/A N/A	N/A N/A			6.65 Inst. Min	N/A Inst. Max	8.82			BU	0	1/week 1/week	Grab	153
30000 (ML-A) RF-A Dissolved Oxygen Year Round	Reported Permit Limits	N/A N/A	N/A N/A			7.6 Inst. Min	N/A Inst. Max	N/A			mg/l	0	1/week 1/week	Grab	153
04110 (ML-A) RF-A Nitrogen, Ammonia Total Winter Nov 1-June 30	Reported Permit Limits	0.8 Avg. Month	16.4 Max. Daily	Lbs/Day	0	N/A	3 Avg. Month	6 Max. Daily			mg/l	0	1/week 1/week	8 hr comp	153
01110 (ML-A) RF-A Copper Total Recoverable Year Round	Reported Permit Limits	N/A N/A	N/A N/A			N/A	0.0034 Avg. Month	0.0221 Max. Daily			mg/l	0	1/week 1/week	8 hr comp	156
74000 (ML-A) RF-A Stevens Flow, Estimated Winter Nov 1-June 30	Reported Permit Limits	N/A N/A	N/A N/A			3733 Rpt Only Inst. Min	712.9 Rpt Only Avg. Month	1766.4 Rpt Only Inst. Max			cfs	0	1/daily 1/daily	Calculated	153

ES-59
Revised 1975

STATE OF WEST VIRGINIA
SUMMARY OF WASTEWATER TREATMENT PLANT OPERATORS

Month: Jan-18
City: Buckhannon W.Va.
Operator: Dan Baker

Date	INFLUENT WASTEWATER					BELT PRESS			Plant Effluent					Azam. Nit. mg/l
	Sus. Sol. mg/l	BOD5 mg/l	Flow mgd	Temp C	PH	Grit Scr. C.F.	Gals./Sludge Added	Wet. Pounds Dry solids Produced	Sus. Sol. mg/l	BOD5 mg/l	Fecal Col./100 ml	D.O. mg/l	PH	
1/1/18			1.013	8.0	7.01	2.0							6.73	
1/2/18			1.034	7.0	6.97	2.0							6.74	
1/3/18	68	214	1.117	6.0	6.97	2.0			1.5	5.8			6.72	0.150
1/4/18			0.907	6.0	6.96	2.0							6.70	
1/5/18			0.932	5.0	6.98	2.0							6.72	
1/6/18			0.917			2.0								
1/7/18			0.970			2.0								
1/8/18			2.066	6.0	7.03	2.0					9	8.6	6.73	
1/9/18			2.121	6.0	7.00	2.0							6.75	
1/10/18	148	133	2.006	7.0	6.97	2.0	19,311	2,319	7.0	4.6		8.3	6.73	0.728
1/11/18			1.947	7.0	6.96	2.0	16,212	1,947				8.1	6.71	
1/12/18			4.081	9.0	6.99	2.0						8.0	6.74	
1/13/18			4.451			2.0								
1/14/18			2.314			2.0								
1/15/18			2.084	9.0	7.04	2.0						8.3	6.76	
1/16/18			1.710	8.0	7.01	2.0					22	8.6	6.78	
1/17/18	84	146	1.555	8.0	7.04	2.0			3.5	2.1		8.9	6.76	0.150
1/18/18			1.491	8.0	7.06	2.0						8.9	6.80	
1/19/18			1.410	8.0	7.05	2.0						8.7	6.82	
1/20/18			1.556			2.0								
1/21/18			1.674			2.0								
1/22/18			1.863	12.0	7.08	2.0	19,015	2,331			7	8.2	6.76	
1/23/18			1.890	13.0	6.97	2.0						7.9	6.72	
1/24/18	104	155	1.629	11.0	6.95	2.0			5.5	4.4		8.2	6.69	1.204
1/25/18			1.493	12.0	6.86	2.0						7.8	6.65	
1/26/18			1.376	12.0	6.84	2.0	16,004	2,162				7.6	6.65	
1/27/18			2.156			2.0								
1/28/18			3.457			2.0								
1/29/18			2.338	10.0	6.95	2.0	18,022	2,330			34	8.1	6.69	
1/30/18			1.842	9.0	7.01	2.0						8.5	6.73	
1/31/18	76	132	1.687	10.0	7.02	2.0			4.0	3.3		8.6	6.72	0.150
TOTAL			57.087				88,564	11,089						
AVERAGE	96	156	1.842	8.6	6.99	2.0			4.3	4.0	13	8.4	6.73	0.386
MAXIMUM	148	214	4.451	13.0	7.06	2.0			7.0	5.8	34	8.9	6.82	1.204
MINIMUM	68	132	0.907	5.0	6.84	2.0			1.5	2.1	7	7.6	6.65	<0.15

- Lunch Room Upgrades:** Mr. Rizo reported the lunch room would be painted and some upgrades (table, cabinets) for about \$2,000.
- Screw pumps:** A pump went down. A new one was purchased for about \$700.00 and will be installed.
- Plant Pump Station**

Correspondence and Information:

1. Letter from WV Department of Highways re: blanket permit



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

Office of the District Engineer/Manager

District Seven

P. O. Box 1228 - Weston, West Virginia 26452 - (204) 265-0400

Thomas J. Smith, P. E.
Secretary of Transportation/
Commissioner of Highways

January 29, 2018

Re: Blanket Permits

Buckhannon Municipal Sanitary Board
70 East Main Street, City Hall
Buckhannon, WV 26201

To Whom it may concern,

District Seven has decided to allow a yearly Blanket permit to Public Service Districts and Municipalities for leak repairs and on side service taps. The conditions of the blanket permit require the PSD or municipality notify the District Utility office prior to the installation of a service tap or leak repair or within 24 hours of an emergency repair. Failure to provide proper notification may result in the permit being revoked. If the Blanket permit is revoked a separate permit will be required for every leak or installation. Please be aware that any crossings or long parallel runs will require an individual permit on a case by case basis.

Sincerely,

Timothy W Ruppert
District 7 Utility Supervisor

2. Tennerton PSD Rate Increase Tariff

TENNERTON PUBLIC SERVICE DISTRICT (Sewer)

P.S.C. W. Va. No. 9
Original Sheet No. 2

INTERIM TARIFF

APPLICABILITY

Applicable within the entire territory served.

AVAILABILITY OF SERVICE

Available for general domestic, commercial, industrial and sale for resale sewer service.

- (I) RATE (Customers with metered supply)
Each 1,000 gallons used per month \$ 9.17 per 1,000 gallons

MINIMUM CHARGE

No minimum bill will be rendered for less than \$15.52 per month, which is the equivalent of 2,000 gallons.

- (I) The above minimum charge is subject to an additional \$1.41 per 1,000 gallons used per month.

- (I) FLAT RATE CHARGE (customers with non-metered water supply)
Equivalent of 4,000 gallons of water usage \$36.68 per month.

DELAYED PAYMENT PENALTY

The above schedule is net. On all accounts not paid in full when due, ten percent will be added to the net current amount unpaid. This delayed payment penalty is not interest and is to be collected only once for each bill where it is appropriate.

TAP FEE

The following charges are to be made whenever the utility installs a new tap to serve an applicant.

A tap fee of \$300 will be charged to customers applying for service outside of a certificate proceeding before the Commission for each new tap to the system.

- (D) LEAK ADJUSTMENT
\$5.29 per 1,000 gallons of water is to be used when a bill reflects unusual consumption which can be attributed to eligible water leakage on the customer's side of the meter. This rate shall be applied to all such unusual consumption above the customer's historical average usage.

(I) Indicates increase (D) Indicates decrease

Received 2-15-18
Effective 12-26-17

Old rate 8.71 per thous.

3. Letter from WVDEP- Re: NPDES Permit Application

west virginia department of environmental protection

Division of Water and Waste Management
601 57th Street SE
Charleston, WV 25304
Telephone Number: (304) 926-0193
Fax Number: (304) 926-0496

Austin Caperton, Cabinet Secretary
dep.wv.gov

February 12, 2018

Honorable David W. McCauley
Mayor, City of Buckhannon
70 E. Main Street
Buckhannon, WV 26201

RE: WV/NPDES Permit Application
No. WV0032336-Upshur County

Dear Sir or Madam:

Your forms for WV/NPDES Individual Permit have been found to be complete.

For your information, we have scheduled the public notice period prescribed in Title 47, Series 10, Section 12.1.b of the West Virginia Legislative Rules issued pursuant to Chapter 22, Article 11 commences on the 16th day of February, 2018 in the *Record Delta*.

Within twenty (20) days after publication of the public notice, you are required to send to the Office a certificate of publication. This should be sent to:

Director, Division of Water and Waste Management, DEP
Permitting Section
601 57th Street, SE
Charleston, WV 25304-2345
Attention: Lori Devereux

Enclosed are copies of your draft permit, any required fact sheet and the public notice. If you have any questions, please do not hesitate to contact this office at 304-926-0495.

Sincerely,



Lori Devereux
NPDES Team

Enclosures

cc: Environmental Inspector Supervisor, Environmental Inspector

Strategic Issues:

- 1. Building Construction on Sewer Right of Way:** Mr. Rizo reported that a building was placed over a sewer line. The property is owned by Hitt's, located in an area near Holbrooks Nursing Home. There is a right of way on file for this line. A meeting is scheduled next week with the owners and their attorney.
- 2. Tennerton Board meeting:** A letter has been drafted to deliver to Tennerton PSD during one of their meetings. Mr. Rizo reported that Thrasher Engineering recently contacted him regarding the agreement about a planned sewer extension.

Board Members Comments and Announcements:

- **Loftis-** Reported he is looking forward to retirement from his company. He will continue to serve on the Sanitary Board.
- **McCauley-** read the following fitness challenge.

CITY OF BUCKHANNON – MAYOR'S FITNESS CHALLENGE February 13, 2018

Mayor McCauley's put on a good number of pounds during his nearly two years as mayor. In fact, he's packed on about a pound a month. It's time for him to get back in shape. As an incentive to trim the fat, something some office holders aren't always adept at doing- the ole guy looks to improve his waistline while parlaying his impending return to physical fitness into funding for our community's long-planned Stockert Youth Center auditorium/gymnasium.

This Friday, February 16, at 9:00 a.m. at City Hall, the mayor will literally weigh in. On Friday morning, June 29, the day of his 60th birthday, McCauley will weigh in again. He's also going to do some other physically fit things, and here's how you can help.

You can pledge a penny, a dime, or a dollar as follows:

- 1) During the 24 hour cycle of June 29, pledge a penny for every step the mayor amasses on his fitbit;
- 2) For every situp the mayor does on Friday afternoon, June 29, pledge a dime;
- 3) For every pound to be lost between February 16 and June 29, pledge a dollar.

All Proceeds will go directly to the capital campaign fund to construct our new auditorium/gymnasium at Stockert Youth Center! To make your pledge, contact City Hall at (304) 472-1651. Here's to improved physical fitness for everyone, while we edge closer to building that new auditorium/gymnasium!

Motion Loftis/Frye to adjourn at 6:10 pm.

Mayor David McCauley

Assistant Recorder Amberle Jenkins
