



**JOINT WATER/SEWER BOARD OF THE CITY OF BUCHANAN AND  
BUCHANAN TOWNSHIP**

**MONDAY, FEBRUARY 03, 2025 – 7:00 AM**

**CHAMBER OF BUCHANAN CITY HALL - 302 N REDBUD TRAIL, BUCHANAN MI**

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**AGENDA**

*THE JOINT WATER SEWER BOARD OF THE CITY OF BUCHANAN AND BUCHANAN TOWNSHIP, in compliance with the Open Meetings Act, hereby gives notice of a regular meeting to be held in the Chamber of Buchanan City Hall.*

*\* Comments may be submitted in writing at least 72 hours in advance to the City Clerk at [clerk@cityofbuchanan.com](mailto:clerk@cityofbuchanan.com)*

- I. Call to Order**
- II. *Pledge of Allegiance***
- III. Roll Call**
- IV. Approve Agenda**
- V. *Public Comment - Agenda Items Only***
- VI. Approve Minutes**
  - A. Minutes from November 18th, 2024**
- VII. *Unfinished Business***
- VIII. *New Business***
  - A. Update- Downtown Projects/ New Influent line to WWTP**
  - B. TMF Grant Update- Inside Verifications**
  - C. Water & Wastewater Reports**
- IX. *Public Comment - Non-Agenda Items Only***
- X. Adjournment**



**JOINT WATER/SEWER BOARD OF THE CITY OF BUCHANAN AND  
BUCHANAN TOWNSHIP**

**MONDAY, NOVEMBER 18, 2024 – 7:00 AM**

**CHAMBER OF BUCHANAN CITY HALL - 302 N REDBUD TRAIL, BUCHANAN MI**

**MINUTES**

**I. Call to Order**

Chairman Gordon called the meeting to order at 7:00 AM.

**II. Pledge of Allegiance**

Chairman Gordon led the reciting of the Pledge of Allegiance.

**III. Roll Call**

**Present: Chairman Tomas Gordon, Buchanan Township Supervisor Mindy Cole-Crocker, Buchanan City Commissioner Larry Money, Mayor Pro Tem Patrick Swem, Brian Murphy**

**City Staff: City Manager, Timothy Lynch; City Clerk, Kalla Langston; Water Operator in Charge, Craig Miller, Zoey**

**IV. Approve Agenda**

Motion made by Swem, supported by Money to amend the agenda to add item VIII. New Business E. S. Redbud Trail feasibility study. Voice vote carries unanimously.

**V. Public Comment - Agenda Items Only**

*None.*

**VI. Approve Minutes**

A. *Consider approval of the Regular Meeting Minutes from August 19th, 2024.*

Motion made by Money, supported by Murphy to approve the minutes as presented. Voice vote carries unanimously.

**VII. Unfinished Business**

**VIII. New Business-City Manager, Timothy J. Lynch**

**A. Water/Sewer Rate Analysis- John Holland-Michigan Rural Water Association.**

Holland presented the rate study that he did for the water fund. Please see Attachment A for the full report.

**B. Technical Managerial and Financial (TMF) Lead Service Line Replacement (LSLR) Grant Update**

Mr. Lynch provided information relating to the \$558,000 grant the City was recently awarded to investigate and determine the material composition of the service lines for users in the water supply system. The City is working with Prein & Newhof Engineers in the scheduling process to gain access to the customers’ homes to verify the service line materials. It is expected the verification process will take six months.

**C. New NPDES Discharge Permit Buchanan Wastewater Treatment Plant.**

Mr. Lynch noted a new NPDES discharge permit was issued by EGLE to the Buchanan Wastewater Treatment Plant in early October with an expiration date of October 1, 2027. He reviewed some of the new monitoring requirements including effluent Total Copper, Chloride and Sulfate.

**D. Water & Wastewater Department Reports.**

**Compliance Evaluation Inspection** – Mr. Lynch reviewed a summary of a Compliance Evaluation Inspection (CEI) conducted by EGLE on October 3, 2024, at the Wastewater Treatment Plant. The facility was found to be in compliance and no issues were noted relating to the inspection. Two prior violations were noted in the report. The plant reported instances of noncompliance in January 2024 relating to the Fecal Coliform Maximum 7-Day Limit. In July, the Buchanan sewer system reported a sanitary sewer overflow into McCoy Creek. It was noted the overflow was stopped and the damaged line causing the overflow was repaired. No follow-up items were required at this time.

**Financial Advisory Services – Bedzinski & Co.** – Mr. Lynch reported that due to the number of outstanding bonds and amount of debt incurred by the City, it would be beneficial to retain a financial services firm familiar with the City’s finances to assist in navigating the debt payment process and to provide and legitimize utility rate setting and adjustments going forward. A proposal for such services has been provided by Andy Campbell (CPA) of Bendzinski & Co. to be the City’s rate consultant. Mr. Lynch noted it is his intent to seek City Commission approval to retain the firm at the November 25<sup>th</sup> meeting.

**PFAS Local Limits Proposal** – Mr. Lynch informed the Board he is considering a proposal from Jones & Henry Engineers to provide professional services in the development of Local Limits for PFAS compounds and a Pollutant Minimization Plan (PMP) for the compounds. He indicated he would take the proposal to the City Commission for approval in the near future.

**E. Feasibility Study at South Redbud Trail**

Bertrand Charter Township passed a resolution in support of installing utility sleeves under the tracks during their last meeting. They also expressed interest in partnering on a feasibility study to explore potential expansions of the system for our three communities.

Baker suggested that at least putting a sleeve while the work by railroad crossing is being done for future use.

**IX. Public Comment - Non-Agenda Items Only**

**X. Adjournment**

Chairman Gordon made the adjournment at 8:14 AM.

**City of Buchanan**  
**Joint Water Sewer Board**  
**February 2025 Activity Report**

**Drinking Water Supply System**

Chemical Feed System Improvements were performed at the Water Plant by Solberg Knowles Associates. The work included chlorine application equipment maintenance and calibration tasks, the installation of two new vacuum regulators, a new remote meter, a rebuilt remote meter and one new gas sensor associated with the feed equipment for the City's water distribution system. The system has been returned to service and is fully functional.

Extensive SCADA System Improvements including programming, telemetry, and firewall work was performed and completed for the City's water supply system by Gasvoda. The work included the installation of electrical equipment, cellular modems, control panels and the performance of startup and commissioning tasks associated with the project. The work was completed in October and the City has since requested warranty, licensing, startup and commissioning documentation from Gasvoda.

The pumping equipment associated with Water Well 1A was overhauled and rebuilt by Peerless Midwest. Upon initial inspection, it was determined the well casing and screen are in good condition. The well was last cleaned in 2001 and it was cleaned again recently to restore lost capacity. Machine work was performed on the 1000 GPM pump bowl assembly including skim cutting of the impeller hubs and fabrication of new wear rings. The column pipe above the bowl assembly was found in very poor condition and was replaced with a new pipe section. The inline shafting is all stainless steel and was cleaned, straightened and reinstalled. The 60 HP motor was sent to the motor repair shop and a standard overhaul was performed. Water Well 1A was returned to service in January. With completion of the overhaul work, it is expected that the equipment will be available for a service cycle of another 10 to 15 years.

**Wastewater Treatment**

Forty-eight (48) new lamps and associated components were purchased for the Ultraviolet (UV) disinfection system at the wastewater treatment plant in September. The system consists of two banks with 24 lamps in each bank. One complete bank of lamps (24) was replaced and installed and placed into service. The remaining lamps have been placed into spare inventory.

The UV disinfection system experienced incidents of electrical faults in November. Upon inspection, it was determined one of the system's electrical ballasts was failing. A new ballast from spare inventory was installed and this remedied the situation. A follow-up inspection of all the ballasts determined one other candidate for replacement. Four additional ballasts have been purchased and one other ballast was subsequently replaced. The remaining ballasts are in spare inventory and are available for installation when necessary.

The Mixed Liquor Mixer experienced a series of electrical faults and stopped operating in December. The mixer was removed from the mixing tank for diagnosis. A temporary aeration mixing system was installed in the tank. Upon inspection of the mixer and motor, it was determined the submersible motor failed due to the migration of moisture into the sealed motor. The equipment was shipped to Fixall Electric Motor Service for repair. Upon inspection, it was determined the motor windings were burnt and that water was in the seal chamber. The motor has been re-wound, and a new thermal sensor has been installed. The motor was re-built with new bearings, seals and O-rings. A new electrical cord was installed and the motor has been successfully tested. A new stainless steel lifting chain has been purchased for the system. It is anticipated the mixer will be delivered, installed and returned to service the week of January 27<sup>th</sup>.

**Wastewater Treatment (continued)**

An underground natural gas leak was discovered on December 3<sup>rd</sup> in the vicinity of the SEMCO gas meter for the old portion of the Buchanan Wastewater Plant. SEMCO personnel were notified and a crew was deployed to the site to purge the leaking gas from underground. Gas service to the meter and the old plant was terminated and the purging of all leaked gas was performed. Upon completion of the purging operation, the meter was disconnected and removed from service. The determination of natural gas needs for the old portion of the plant going forward is being evaluated and will be determined in the near future.

A kickoff meeting was held with Jones & Henry Engineers and Wastewater Plant personnel relating to the PFAS Local Limits and Pollutant Minimization Plan program. The meeting was held on January 14<sup>th</sup>. Items discussed included PFAS sources, reviewing analytical data, NPDES permit language, future capital improvements and the providing of access for Jones & Henry personnel to the Wastewater Plant's MiEnviro portal information relating to the project. A follow-up meeting will be held in the near future to discuss strategies and program implementation.

# City of Buchanan Water and Wastewater Reporting February 2025

## DRINKING WATER

	December 2024	November 2024	October 2024	December 2023	
<b>WATER PRODUCTION</b>					
DAILY AVERAGE (MG)	0.30	0.25	0.28	0.27	
MAXIMUM DAY (MG)	0.98	0.89	0.84	0.91	
 <b>CHEMICAL APPLICATION</b>					
CHLORINE APP. RATE (#/Day)	3.63	2.21	4.20	3.60	
FLUORIDE APP. RATE (#/Day)	4.81	4.96	11.50	17.20	
 <b>WATER QUALITY</b>					<b>Regulatory Limit</b>
CHLORINE RESIDUAL (mg/l)	1.60	0.16	0.43	0.70	4.0 (MCL)
FLUORIDE RESIDUAL (mg/l)	0.80	0.90	1.10	1.00	4.0 (MCL)
RAW WATER MONITORING PERFORMED AT 4 WELLS EACH MONTH FOR COLIFORM					

## WASTEWATER

	December 2024	November 2024	October 2024	December 2023	
<b>PLANT FLOW</b>					
DAILY AVERAGE (MG)	0.877	0.748	0.686	0.791	
MAXIMUM DAY (MG)	1.207	1.038	0.770	0.867	
GAL/CAP/DAY	199	170	156	180	
 <b>FINAL EFFLUENT</b>					<b>Regulatory Limit</b>
CARB-BOD (mg/l)	2	2	2	4	25 mg/l
SUSPENDED SOLIDS (mg/l)	6	8	8	15	30 mg/l
PHOSPHORUS (mg/l)	0.74	0.59	0.55	0.94	1.0 mg/l
FECAL COLIFORM / 100 ML	17	17	9	91	200 ct/100 ml
pH	7.3	7.3	7.5	7.2	6.5 - 9.0
DISSOLVED OXYGEN (DO) in mg/l	5.9	5.5	5.0	5.5	3.0 mg/l min.
 <b>POWER AND GAS</b>					
<b>POWER</b> KWH/MG	2,588	2,596	2,547	1,978	
KWH / #CBOD	3.32	3.36	3.79	3.90	
 <b>NATURAL GAS (100 CU. FT.)</b>	472	499	227	703	

Old Plant Gas Meter Removed From Service 12/6/24

**November**

**Water 7.62 MGD Chlorine 66.4lbs Fluoride 23% 148.8lbs**

**December**

**Water 9.38 MGD Chlorine 112.6lbs Fluoride 23% 149.2lbs**

**Below are my Bacti samples for each month.**

November	11/4/2024	502 River Street	0.56	0.60
	11/4/2024	302 Redbud Trail	0.31	0.37
	11/4/2024	Rynearson Booster Station	0.94	1.03
	11/12/2024	502 River Street	0.65	0.69
	11/12/2024	302 Redbud Trail	0.30	0.41
			<b>Monthly Average</b>	<b>0.552</b>

December	12/2/2024	502 River Street	0.77	0.82
	12/2/2024	302 Redbud Trail	0.47	0.52
	12/2/2024	Rynearson Booster Station	0.74	0.81
	12/9/2024	502 River Street	0.73	0.83
	12/9/2024	302 Redbud Trail	0.50	0.53
			<b>Monthly Average</b>	<b>0.642</b>

**2024**

**Gallons**

Starting Date	Ending Date	Pumped	Gallons Billed	% Lost
12/27/2023	1/26/2024	8.75	7.292	17%
1/27/2024	2/27/2024	8.66	7.924	8%
2/28/2024	3/26/2024	8.44	6.941	18%
3/27/2024	4/26/2024	8.42	6.949	17%
4/27/2024	5/28/2024	9.24	7.389	20%
5/29/2024	6/27/2024	11.23	7.641	32%
6/28/2024	7/26/2024	10.39	8.505	18%
7/27/2024	8/27/2024	10.41	7.868	24%
8/27/2024	9/25/2024	10.81	9.395	13%
9/26/2024	10/25/2024	8.82	8.768	1%
10/26/2024	11/25/2024	7.62	7.962	-4%
11/26/2024	12/26/2024	9.38	6.659	29%
	<b>Total</b>	<b>112.17</b>	<b>93.293</b>	<b>17%</b>