



City of Appleton

100 North Appleton Street
Appleton, WI 54911-4799
www.appleton.org

Meeting Agenda - Final-revised Utilities Committee

Tuesday, October 24, 2023

4:30 PM

Council Chambers, 6th Floor

1. Call meeting to order

2. Pledge of Allegiance

3. Roll call of membership

4. Approval of minutes from previous meeting

[23-1242](#) Approval of the October 10, 2023 Utilities Committee Meeting minutes.

Attachments: [October 10, 2023 Utilities Committee Meeting Minutes.pdf](#)

5. **Public Hearing/Appearances**

6. **Action Items**

7. **Information Items**

[23-1274](#) DuPont and 3M Multijurisdictional PFAS Settlement Status - Under Review

[23-1183](#) 2024 Utilities Department Budget Discussion

[23-1243](#) Monthly Reports for July, August, and September 2023:
- Wastewater Treatment Plant Synopsis and Receiving Station Report
- Water Treatment Facility Synopsis
- Water Distribution and Meter Team Monthly Report - September

Attachments: [2023 Q3 Wastewater Plant Synopsis.pdf](#)

[2023 Q3 Water Facility Synopsis.pdf](#)

[September 2023 Water Main Breaks.pdf](#)

8. **Adjournment**

Notice is hereby given that a quorum of the Common Council may be present during this meeting, although no Council action will be taken.

Reasonable Accommodations for Persons with Disabilities will be made upon Request and if Feasible.

For questions on the agenda, contact Chris Shaw at 920-832-5945 or Danielle Block at 920-832-6474.



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Meeting Minutes - Final Utilities Committee

Tuesday, October 10, 2023

4:30 PM

Council Chambers, 6th Floor

1. Call meeting to order

Chairperson Meltzer called the Utilities Committee Meeting to order at 4:30 p.m.

2. Pledge of Allegiance

3. Roll call of membership

Present: 4 - Meltzer, Del Toro, Doran and Firkus

Excused: 1 - Siebers

4. Approval of minutes from previous meeting

[23-1179](#)

Approval of the September 12, 2023 Utilities Committee Meeting minutes.

Attachments: [September 12, 2023 Utilities Committee Meeting Minutes.pdf](#)

Del Toro moved, seconded by Firkus, that the Minutes be approved. Roll Call. Motion carried by the following vote:

Aye: 4 - Meltzer, Del Toro, Doran and Firkus

Excused: 1 - Siebers

5. Public Hearing/Appearances

6. Action Items

[23-1180](#)

Approval to single source and award 2023C Stormwater Consulting Services Contract for assistance with the Interstate 41 Reconstruction Project to Brown and Caldwell in an amount not to exceed \$50,000.

Attachments: [2023C Single Source 41 Reconstruction Phase 2 BC award util memo.pdf](#)

Firkus moved, seconded by Del Toro, that the single source and award of 2023C Stormwater Consulting Services Contract for assistance with the Interstate 41 Reconstruction Project to Brown and Caldwell be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 4 - Meltzer, Del Toro, Doran and Firkus

Excused: 1 - Siebers

[23-1181](#)

Second amendment 2023A Stormwater Management Plan Review contract with Brown and Caldwell by an increase of \$20,000 for a total contract amount not to exceed \$75,000.

Attachments: [2023A SWM Plan Review BC 2nd Amendment Memo Util Cmte.pdf](#)

Firkus moved, seconded by Del Toro, that the second amendment 2023A Stormwater Management Plan Review contract with Brown and Caldwell by an increase of \$20,000 for a total contract amount not to exceed \$75,000 be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 4 - Meltzer, Del Toro, Doran and Firkus

Excused: 1 - Siebers

[23-1182](#)

Approve wastewater rate increase of 7% for general service and special hauled waste service and increase compost fee to \$13/cu. yard to be effective January 1, 2024.

Attachments: [Memo 2024 Rate Increase.pdf](#)
[2024 Rate Sheet.pdf](#)

Firkus moved, seconded by Doran, that the Wastewater Rate Increase of 7% for general service and special hauled waste service and increase compost fee to \$13/cu. yard to be effective January 1, 2024 be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 4 - Meltzer, Del Toro, Doran and Firkus

Excused: 1 - Siebers

7. Information Items

[23-1183](#)

2024 Utilities Department Budget Discussion

The Department of Public Works portion of the 2024 Utilities Budget was discussed.

[23-1184](#)

Monthly Reports for August 2023:

- Water Distribution and Meter Team Monthly Report

Attachments: [August 2023 Water Main Breaks .pdf](#)

This report was reviewed.

8. Adjournment

Firkus moved, seconded by Del Toro, that the Utilities Committee meeting be adjourned at 5:00 p.m.. Roll Call. Motion carried by the following vote:

Aye: 4 - Meltzer, Del Toro, Doran and Firkus

Excused: 1 - Siebers

**Appleton Wastewater Treatment Plant
Operations Synopsis
July 2023 – September 2023**

Wastewater Treatment Program

- The Appleton Wastewater Treatment Plant (AWWTP) final effluent met Wisconsin Department of Natural Resources (WDNR) discharge monitoring reporting limits for carbonaceous biochemical oxygen demand (CBOD), total suspended solids (TSS), phosphorous, and ammonia. The plant maintained good treatment and a healthy microbiological population with a sludge retention time of 9 days. Dewatering processes functioned well and converted 16 million gallons (MG) of primary digested sludge to biosolids.

Summary of Treatment

Parameter	July	August	September	Quarter Average
Industrial Flow (MG)	27.3	30.6	30.7	29.5
Domestic Flow (MG)	235.4	265.0	218.0	239.5
Total Flow (MG)	262.7	295.6	248.7	269.0
Influent CBOD Load (Avg Daily lbs)	24,730	25,291	24,285	24,769
Influent TSS Load (Avg Daily lbs)	57,948	55,051	53,040	55,346
Influent Phosphorous Load (Avg Daily lbs)	490	489	449	476
Influent Ammonia Load (Avg Daily lbs)	2,249	2,609	2,875	2,578
Effluent CBOD Load (Avg Daily lbs)	274	316	313	301
Effluent TSS Load (Avg Daily lbs)	104	177	220	167
Effluent Phosphorous Load (Avg Daily lbs)	19	24	27	23
Effluent Ammonia Load (Avg Daily lbs)	46	91	55	64
% Treatment Removal of CBOD	98.9	98.8	98.7	98.8
% Treatment Removal of TSS	99.8	99.7	99.6	99.7
% Treatment Removal of Phosphorous	96.1	95.1	94.0	95.1
% Treatment Removal of Ammonia	98.0	96.5	98.1	97.5

Project Updates

- Appleton Wastewater Treatment Plant Sludge Storage Building Addition: The construction contract with Miron Construction in the amount of \$5,330,989 was approved by Common Council on July 20, 2022. Active construction proceeded during the quarter with the building addition approximately 80% complete. Remaining project highlights include electrical, interior and exterior lighting, conveyor installation and commissioning, outside pavement installation, and site restoration. Final completion is projected to occur in February 2024.
- Phase I Appleton Wastewater Plant Belt Filter Press Equipment Upgrades: The construction contract with Staab Construction (Staab) in amount \$5,063,000 was approved by Common Council on December 7, 2022. Construction activities during the reporting period included demolition of a remnant polymer system and associated piping, installation of the new make-up air unit, and various electrical work that will support the two new belt filter press units. February 2024 remains the contractual final completion date but will likely need to be extended because longer than expected equipment lead times.

- Phase II Appleton Wastewater Plant Belt Filter Press Equipment Upgrades: McMahon is currently under contract for Phase II Solids Dewatering Equipment Upgrades engineering services. The construction bid documents are approximately 98% complete with project public bidding projected to occur in the 4th Quarter based on the projected equipment lead times associated with the Phase I construction.
- Grit Trap Vortex System Drive and Raw Sludge Pump Replacement Projects – The construction contract with August Winter and Sons, Inc. in the amount of \$573,355 was approved by Common Council on September 6, 2023. The contract was subsequently executed in early October. The construction submittal process immediately pursued with active construction not expected to occur until June 2024 because of extremely long equipment lead times.
- Digester Circulation Piping, Blended Sludge Piping, and Heat Exchanger Replacement Project – McMahon is under contract to provide engineering, contract administration, contract management, field services, and construction management services as part of a project that will address the compromised integrity of pipe which support primary anaerobic digester processes (e.g., sludge feed, sludge circulation, and sludge heating pipe) caused by over 20 years of erosion and corrosion. McMahon advanced preliminary design plans and specification during the reporting period and anticipate publication as part of public bidding to occur prior to year-end 2023.

Regulatory Summary

- Monthly Discharge Monitoring reports for July, August, and September were filed electronically on time for regulatory compliance.
- The AWWTP Wisconsin Pollution Discharge Elimination System (WPDES) electronic permit application was submitted on October 2, 2021, as part of reissuance. The current WPDES permit expired on March 31, 2022. The AWWTP continues to operate under the expired permit limits until DNR reissues a permit. Procedurally, the DNR has yet to submit a draft permit for review and public comment. The exact timeline remains unknown for when that step will occur. However, we are anticipating that the reissued permit will be administered sometime in early 2024.

Laboratory

- All sampling and laboratory testing procedures were performed in accordance with requirements outlined in the AWWTP WPDES permit.
- Discharge Monitoring Report (DMR) and Health Department testing program objectives associated with sampling and analysis were met during the reporting period.
- Sampling of influent in support of Wisconsin State Lab of Hygiene COVID Sewage Surveillance continued during the reporting period.

Staffing & Training

- Staffing levels remain reduced following the resignations of two Wastewater Plant Relief Operators in late 2022. One of those vacancies was filled in January 2023. The other Relief Operator vacancy was filled when an existing Wastewater Plant Operator transferred positions. This in turn left two open Wastewater Plant Operator Positions. Two qualified Wastewater Plant Operator candidates were hired in the 3rd quarter and are currently job shadowing until their training process is complete.
- Maintained operations schedules with overtime and deferred maintenance work assignments as a result of the ongoing Wastewater Plant Operator training.

YEAR 2023 RECEIVING STATION REVENUE

Hauler	January	February	March	April	May	June	July	August	September	October	November	December	Y-T-D Total
A & B Leist Trucking	\$ 24,775.04	\$ 87,845.97	\$ 135,520.54	\$ 147,043.94	\$ 154,606.46	\$ 138,061.05	\$ 153,077.03	\$ 129,725.31	\$116,600.40				\$ 1,087,255.74
Hickory Meadows	\$ 16,496.13	\$ 39,715.07	\$ 86,342.34	\$ 66,164.99	\$ 47,542.59	\$ 32,600.64	\$ 29,379.84	\$ 36,167.31	\$ 31,851.46				\$ 386,260.37
Jeff Waldvogel Trkg.	\$ 3,550.74	\$ 6,998.07	\$ 13,327.59	\$ 18,096.78	\$ 21,051.79	\$ 19,501.51	\$ 21,847.95	\$ 21,782.35	\$ 24,835.12				\$ 150,991.90
Nate Waldvogel Trkg.	\$ 3,737.20	\$ 14,627.86	\$ 16,611.32	\$ 16,954.86	\$ 16,692.40	\$ 18,018.94	\$ 18,183.77	\$ 17,620.22	\$ 20,168.29				\$ 142,614.86
Waldvogel Trucking	\$ 1,073.70	\$ 2,169.20	\$ 2,106.81	\$ 2,363.40	\$ 2,348.35	\$ 1,922.67	\$ 2,258.02	\$ 2,565.07	\$ 2,395.26				\$ 19,202.48
2023 Total	\$ 49,632.81	\$151,356.17	\$ 253,908.60	\$ 250,623.97	\$ 242,241.59	\$ 210,104.81	\$ 224,746.61	\$ 207,860.26	\$195,850.53	\$ -	\$ -	\$ -	\$ 1,786,325.35
2022 Total	\$216,311.75	\$187,091.71	\$229,126.20	\$265,240.25	\$218,399.46	\$234,422.19	\$247,854.73	\$217,396.10	\$165,697.73	\$197,486.74	\$190,481.28	\$ 142,568.74	\$2,512,076.88

- 3% Rate Increase effective 1/1/18
- 1% Rate Increase effective 1/1/19
- 5% Rate Increase effective 10/1/20
- 4% Rate Increase effective 01/01/22
- 7% Rate Increase effective 01/01/23

*Nate Waldvogel Trucking - new hauler in 2023

Date: October 18, 2023
 Copies: K. Rindt (via email)
 C. Shaw (via email)
 B. Kreski
 Utilities Committee

**Appleton Water Treatment Plant
Operations Synopsis
July, August, & September 2023**

Performance Summary

The table below presents selected water production and quality performance metrics for the current and previous reporting period.

Treated Water Quality. All compliance parameters met or exceeded regulatory requirements.

Water Production. Compared with Q3 of 2023 (Y/Y) average production increased by over 5.6%. Production increased by nearly 5.7% from Q2 of 2023.

Raw Water Quality. Average turbidity Y/Y levels increased by over 29% from Q3 2022.

Energy Efficiency. Applied electrical energy efficiency Y/Y increased by almost 2% from Q3 2022.

WATER PLANT PARAMETERS	Previous (Q2 2023)			Current (Q3 2023)		
	April	May	June	July	August	September
Water Treated						
Finished (million gallons), total	250.8	307.8	323.8	322.1	308.6	301.5
Finished (million gallons / day), average	8.4	9.9	10.8	10.4	10	10.1
Electrical Energy (WTF)						
Consumption (Megawatt-hours)	418.6	495.2	553.1	555.6	544.5	506.2
MWH / million gallons produced	1.7	1.6	1.7	1.7	1.8	1.7
Lake Turbidity (NTU), average	7.86	5.42	8.48	15.51	15.94	11.92
Water System Microbial Quality						
Total Coliform Samples	81	81	81	81	81	81
Compliance with Standard	100%	100%	100%	100%	100%	100%
Finished Water Quality						
Water Temperature (Degrees F)	44.42	56.7	70.93	75.78	74.26	69.21
Turbidity (NTU), average	0.05	0.04	0.04	0.04	0.04	0.04
%<0.15 NTU standard	100	100	100	100	100	100
pH (SU), average	8.4	8.4	8.3	8.1	8.0	8.0
Total Chlorine (mg/L)	2.18	2.08	2.13	2.12	2.09	1.96
Fluoride (mg/L)	0.68	0.69	0.71	0.71	0.67	0.69
Orthophosphate (mg/L)	0.76	0.69	0.75	0.76	0.73	0.74

Laboratory

- In support of plant operations, staff conducted analyses according to method protocols for pH, turbidity, alkalinity, hardness, free/total chlorine, ammonia, phosphorus, potassium permanganate, and fluoride.
- In support of distribution operations, staff performed required 81 monthly Coliform bacteria analyses along with heterotrophic plate count (HPC) testing.
- Quarterly disinfection by-product rule monitoring with wholesale water customers (DBPR-2) was completed.

Safety

- Maintained Water Treatment Facility Safety programs by completing scheduled safety inspections, fire prevention inspections, and monthly meetings. No significant incidents to report.

Operations

- Operated two UV Disinfection Reactors continuously during the quarter.
- Maintained Main Pressure Zone pressure increases as recommended by Water Distribution System Master Plan.
- Membrane Wash Water tank being cleaned out.
- Corrosion Control Treatment construction project commenced.
- Lindbergh Standpipe cleaned & inspected.
- #3 Softener out of service for cleaning and inspection.
- Parking lot hardscape project completed.
- Air compressor replacement project ongoing.
- Second Raw water line piping project completed.

Staffing & Training

- Staffing levels fully staffed with the addition of one Water Plant Operator.
- Maintained operations schedules and maintenance work assignments.

WATER MAIN BREAK/ JOINT LEAK REPORT - September 2023

YEARLY WATER MAIN BREAK COMPARISON

MONTH 22	MONTH 23	YTD 22	YTD 23
4	14	92	58

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**	TOTAL DOLLAR VALUE FOR BREAK* <small>(Water Costs + Repair Costs)</small>
1101 S. Schaefer St.	9/2/2023	309269	DIP	12"	1975	3" Hole	4 Hours	378,978	\$2,304.19	\$11,304.19
NOTES: The break was found due to water bubbling. The duration was calculated by the soil saturation and the time broke until it was fixed.										
S.Kensington Dr. & E. College Av.	9/3/2023	309269	DIP	12"	1977	3" Hole	4 days and 2 Hours	2,953,612	\$17,957.96	\$26,957.96
NOTES: The break was found due to a call in. The duration was calculated by the time the person called in and the time the valves were closed.										
1610 Schaefer Cir.	9/6/2023	309269	DIP	8"	1971	4" Hole	4 Hours	710,183	\$4,317.91	\$13,317.91
NOTES: The break was found due to a call in because of water of the road. The duration was calculated by the time of the call in and the amount of sediment washed away.										
1301 W. Homestead Dr.	9/7/2023	309269	DIP	8"	1978	3" Hole	4 Hours	364,672	\$2,217.21	\$11,217.21
NOTES: The break was found due to a call in by a resident. The duration was calculated by the time of the call and the amount of water bubbling.										
1425 W. Cloverdale Dr.	9/7/2023	309269	DIP	8"	1978	4" Hole	3 Hours	486,229	\$2,956.27	\$11,956.27
NOTES: The break was found due to a call in by a resident. The duration was calculated by the time of call and the response time.										

**Water Loss is calculated at the residential rate of \$6.08 per 1000 gallons.

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**	TOTAL DOLLAR VALUE FOR BREAK* (Water Costs + Repair Costs)
21 Arbor Lane	9/8/2023	309269	DIP	8"	1978	4" Hole	5 Hours	810,382	\$4,927.12	\$13,927.12
NOTES: The break was found due to a call in by a resident. The duration was calculated by the time of the call and the amount of water										
21 Arbor Lane	9/8/2023	309269	DIP	8"	1978	5" Hole	5 Hours	1,266,222	\$7,698.63	\$16,698.63
NOTES: The break was found due to a call in by a resident. The duration was calculated by the time of the call and the amount of water.										
1610 Schaefer Cir.	9/11/2023	309269	DIP	8"	1971	3" Hole	4 Hours	399,478	\$2,428.83	\$11,428.83
NOTES: The break was found due to a call in by a resident. The duration was calculated by the time of the call and the amount of water bubbling.										
21 Arbor Lane	9/11/2023	309269	DIP	8"	1978	8" x 1/16" Split	3 Days	348,236	\$2,117.27	\$11,117.27
593 The break was found due to noise on the hydrant. The duration was calculated from the date of the last break.										
303 S. Linwood Ave.	9/15/2023	309269	DIP	12"	1980	1/2" Hole	3 Weeks	1,169,795	\$7,112.35	\$16,112.35
NOTES: The break was found due to a call in by the owner of 303 S. Linwood Ave. The duration was calculated by the owner saying it was wet in the terrace for three weeks.										
N. Birchwood Ave. & W. Weiland La	9/21/2023	309269	DIP	8"	1979	3" Hole	3 Hours	278,920	\$1,695.83	\$10,695.83
NOTES: The break was found due to a call in by a resident. The duration was calculated by the time of the call and the amount of water.										
1419 W. Fourth St.	9/21/2023	309269	CIP	8"	1965	1/4" Crack	48 Hours	2,767,665	\$16,827.40	\$25,827.40
NOTES: The break was found due to a call in by a resident. The duration was calculated by the soil saturation and the amount of water.										

**Water Loss is calculated at the residential rate of \$6.08 per 1000 gallons.

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**	TOTAL DOLLAR VALUE FOR BREAK* (Water Costs + Repair Costs)
1641 W. Cloverdale Dr.	9/22/2023	309269	DIP	8"	1978	4" Hole	4 Hours	648,305	\$3,941.69	\$12,941.69
NOTES: The break was found due to a call in by a resident. The duration was calculated by the amount of water bubbling.										
1641 W. Cloverdale Dr.	9/23/2023	309269	DIP	8"	1978	3" Hole	3 Hours	273,504	\$1,662.90	\$10,662.90
NOTES: The break was found due to a call in by a resident. The duration was calculated as the crew had just finished repairing another break.										
									Total Cost =	\$204,165.58

*In addition to the dollar value of water revenue lost, there is an average cost of \$9,000 to repair each water main break (including final restoration) and an average cost of \$630 to produce the lost water for each main break.

**Water Loss is calculated at the residential rate of \$6.08 per 1000 gallons.