



City of Appleton

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

Meeting Agenda - Final Utilities Committee

Tuesday, April 25, 2023

4:30 PM

Council Chambers, 6th Floor

1. Call meeting to order

2. Roll call of membership

3. Approval of minutes from previous meeting

[23-0418](#) Approval of the April 11, 2023 Utilities Committee Meeting minutes.

Attachments: [April 11, 2023 Utilities Committee Meeting Minutes.pdf](#)

4. **Public Hearings/Apearances**

5. **Action Items**

[23-0432](#) Elect a Vice-Chair for the Utilities Committee.

6. **Information Items**

[23-0433](#) Confirm Meeting Date and Time for the Utilities Committee to meet.

[23-0434](#) Designate a Contact Person who can answer specific questions about agenda items for the Utilities Committee.

[23-0419](#) Monthly Reports for January, February, and March 2023:
- Wastewater Treatment Plant Synopsis and Receiving Station Revenue Report
- Water Treatment Facility Synopsis
- Water Distribution and Meter Team Monthly Report - March

Attachments: [2023 Q1 Wastewater Plant Synopsis.pdf](#)

[2023 Q1 Receiving Station Revenue Report.pdf](#)

[2023 Q1 Water Plant Synopsis.pdf](#)

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

7. 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.

**We are currently experiencing intermittent issues/outages with our audio/video equipment. Meeting live streams and recordings are operational but unreliable at times. This is due to delays in receiving necessary system hardware components. We continue to look for solutions in the interim and we hope to have these issues resolved soon.*

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, April 11, 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. Roll call of membership

Present: 4 - Meltzer, Doran, Firkus and Schultz

Excused: 1 - Jones

3. Approval of minutes from previous meeting

[23-0340](#)

Approval of the March 21, 2023 Utilities Committee Meeting minutes.

Attachments: [March 21, 2023 Utilities Committee Meeting Minutes.pdf](#)

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

Aye: 4 - Meltzer, Doran, Firkus and Schultz

Excused: 1 - Jones

4. Public Hearings/Appearances

5. Action Items

[23-0341](#)

Award Unit F-23 Sanitary & Storm Sewer Cleaning and Televising to Green Bay Pipe & TV, LLC in an amount not to exceed \$266,500.

Attachments: [Utilities Committee - 04-11-23 - Award of Contract Unit F-23.pdf](#)

Firkus moved, seconded by Schultz, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 4 - Meltzer, Doran, Firkus and Schultz

Excused: 1 - Jones

6. Information Items

7. Adjournment

Schultz moved, seconded by Firkus, that the Utilities Committee Meeting be adjourned at 4:34 p.m.. Roll Call. Motion carried by the following vote:

Aye: 4 - Meltzer, Doran, Firkus and Schultz

Excused: 1 - Jones

**Appleton Wastewater Treatment Plant
Operations Synopsis
January 2023 – March 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 9.5 days. Dewatering processes functioned well and converted 15.3 million gallons (MG) of primary digested sludge to biosolids.
- On December 26, 2022, a bulk load of cationic polymer was off loaded into the Hauled Waste Station. The polymer entered the anaerobic digesters and caused a cascade of equipment and process issues resulting in bypassing the digesters. This matter is being addressed separately from the synopsis and communicated to the Utilities Committee through a series of updates at the Utilities Committee meetings.

Summary of Treatment

Parameter	January	February	March	Average
Industrial Flow (MG)	36.9	36.2	38.2	37.1
Domestic Flow (MG)	348.1	295.8	676.8	440.2
Total Flow (MG)	385.0	332.0	715.0	477.3
Influent CBOD Load (Avg Daily lbs)	21,314	24,612	25,956	23,961
Influent TSS Load (Avg Daily lbs)	43,824	51,887	53,005	49,572
Influent Phosphorous Load (Avg Daily lbs)	422	433	443	433
Influent Ammonia Load (Avg Daily lbs)	2,069	2,354	2,553	2,325
Effluent CBOD Load (Avg Daily lbs)	490	806	1,514	937
Effluent TSS Load (Avg Daily lbs)	236	419	826	494
Effluent Phosphorous Load (Avg Daily lbs)	10	15	29	18
Effluent Ammonia Load (Avg Daily lbs)	22	117	349	163
% Treatment Removal of CBOD	97.7	96.7	94.2	96.2
% Treatment Removal of TSS	99.5	99.2	98.4	99.0
% Treatment Removal of Phosphorous	97.6	96.5	93.5	95.9
% Treatment Removal of Ammonia	98.9	95.0	86.3	93.4

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. The contract was subsequently fully executed with a formal notice to proceed issued by Applied Technologies, Inc. on August 2, 2022. The construction submittal process immediately pursued with active construction beginning in April 2023. Final completion is projected to occur in late February 2024.
- 2022 Phase I Appleton Wastewater Plant Belt Filter Press Equipment Upgrades: McMahon Associates, Inc. (McMahon) continued engineering services as part of the Solids Dewatering Equipment Upgrades project. The AWWTP will be replacing all three existing Belt Filter Press (BFP) units and add one additional BFP. The additional BFP will provide the required dewatering capacity based on future growth projections and

redundancy to facilitate critical maintenance events. The public bidding phase was initiated October 20, 2022, and closed on November 10, 2022, with Staab Construction as the least cost bidder at \$5,063,000. Contract award subsequently occurred at Common Council December 7, 2022 with the Notice to Award issued thereafter. Contract execution and formal Notice to Proceed occurred in January 2023. The construction submittal process immediately pursued because of the lengthy lead time (up to 52 weeks) associated with HVAC, electrical, and BFP equipment. Active onsite construction is not anticipated to occur until September 2023. Final completion is currently identified in late February 2024 but will likely need to be extended because of the previously mentioned lead times.

Regulatory Summary

- Monthly Discharge Monitoring reports for January, February, and March 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 is not yet known for when that step will occur, but the DNR is anticipating that the reissued permit will be administered sometime in 2023.

Laboratory

- All sampling and laboratory testing procedures were performed in accordance with requirements outlined in the AWWTP WPDES permit, which included analysis of double-blind proficiency samples for laboratory recertification.
- 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 resignation of a Relief Operator in December 2022. The search to find a qualified candidate continues.
- Maintained operations schedules with overtime and deferred maintenance work assignments as a result of the ongoing Relief Operator vacancy.

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										\$ 248,141.55
Hickory Meadows	\$ 16,496.13	\$ 39,715.07	\$ 86,342.34										\$ 142,553.54
Jeff Waldvogel Trkg.	\$ 3,550.74	\$ 6,998.07	\$ 13,327.59										\$ 23,876.40
Nate Waldvogel Trkg.	\$ 3,737.20	\$ 14,627.86	\$ 16,611.32										\$ 34,976.38
Waldvogel Trucking	\$ 1,073.70	\$ 2,169.20	\$ 2,106.81										\$ 5,349.71
2023 Total	\$ 49,632.81	\$ 151,356.17	\$ 253,908.60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 454,897.58
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: April 17, 2023
 Copies: K. Rindt (via email)
 C. Shaw (via email)
 B. Kreski
 Utilities Committee

**Appleton Water Treatment Plant
Operations Synopsis
January, February, and March 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 Q1 of 2022 (Y/Y) average production decreased by nearly 6%.

Raw Water Quality. Average Q/Q lake turbidity decreased nearly 91% from Q4 2022. Y/Y levels also decreased by just less than 41% from Q1 2022.

Energy Efficiency. Applied electrical energy efficiency Y/Y increased by almost 5% from Q1 2022.

WATER PLANT PARAMETERS	Previous (Q4 2022)			Current (Q1 2023)		
	October	November	December	January	February	March
Water Treated						
Finished (million gallons), total	264.5	246.5	262.3	260.8	235.8	257.6
Finished (million gallons / day), average	8.5	8.2	8.5	8.4	8.4	8.3
Electrical Energy (WTF)						
Consumption (Megawatt-hours)	443.9	424.7	457.9	453.4	410.9	451.3
MWH / million gallons produced	1.7	1.7	1.7	1.7	1.7	1.8
Lake Turbidity (NTU), average	8.17	18.76	14.81	1.53	1.15	1.16
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)	53.5	43.16	33.51	33.8	35.15	37.29
Turbidity (NTU), average	0.05	0.05	0.05	0.04	0.05	0.05
%<0.15 NTU standard	100	100	100	100	100	100
pH (SU), average	8.7	8.8	8.8	8.8	8.8	8.8
Total Chlorine (mg/L)	1.77	1.85	1.89	2.07	2.19	2.19
Fluoride (mg/L)	0.70	0.69	0.69	0.69	0.73	0.71
Orthophosphate (mg/L)	0.69	0.61	0.65	0.62	0.63	0.65

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.
- North Pretreatment Basin and North Softener Inlet channel out of service for cleaning and inspection.
- Harrison sanitary meter calibration successfully completed at Water Plant.
- #2 Softener out of service for cleaning and inspection.
- Faith Technologies worked on fire alarm system upgrade.
- #1 Sodium Hypochlorite Tank successfully repaired and returned to service.
- Air compressor replacement project ongoing.
- 2nd Raw water line piping project started.

Staffing & Training

- Staffing levels temporarily reduced by resignation of one Water Plant Operator.
- Maintained operations schedules with overtime and deferred maintenance work assignments.

WATER MAIN BREAK/ JOINT LEAK REPORT - MARCH 2023

YEARLY WATER MAIN BREAK COMPARISON

MONTH 22	MONTH 23	YTD 22	YTD 23
15	1	60	21

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>
N. Racine St. & E. Park Ridge Av.	3/15/2023	309269	DIP	8"	1974	4" Split, 1/64" Wide	74 Days	1,176,210	\$7,151.36	\$16,151.36

NOTES: The break was found while correlating. The duration was caclulated by the noise while correlating and the soil saturation.

Total Cost =	\$16,151.36
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*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.