



City of Appleton

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

Meeting Agenda - Final Utilities Committee

Tuesday, July 25, 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

[23-0745](#) Approval of the June 13, 2023 Utilities Committee Meeting minutes.

Attachments: [June 13, 2023 Utilities Committee Meeting Minutes.pdf](#)

5. **Public Hearing/Appearances**

6. **Action Items**

[23-0895](#) Amend 2023A Stormwater Management Plan Review contract with Brown and Caldwell by an increase of \$20,000 for a total contract amount not to exceed \$55,000.

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

[23-0910](#) Adopt the Proposed Revised Reid Golf Course and Appleton Memorial Park Stormwater Utility Agreements for Stormwater Ponds.

Attachments: [DPW AMP and Reid Stormwater Pond Utility Agreements.pdf](#)

[23-0911](#) Award Contract to Fiberglass Solutions, Inc. for Hypochlorite Fiberglass Reinforced Plastic Tank Relining Services in the amount of \$24,262 plus a 15% contingency of \$3,639 for a total not to exceed of \$27,901.

Attachments: [230720 UC Memo FiberglassTank RelineContractAward \(003\).pdf](#)

7. **Information Items**

[23-0894](#)

Monthly Reports for April, May, and June 2023:

- Wastewater Treatment Plant Synopsis and Receiving Station Revenue Report
- Water Treatment Facility Synopsis
- Water Distribution and Meter Team Monthly Report - May and June

Attachments: [2023 Q2 Wastewater Synopsis.pdf](#)

[2023 Q2 Effluent Quality Summary.pdf](#)

[2023 Q2 Receiving Station Revenue Report.pdf](#)

[2023 Q2 Water Plant Synopsis.pdf](#)

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

[June 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.



City of Appleton

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Meeting Minutes - Final Utilities Committee

Tuesday, June 13, 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: 5 - Meltzer, Del Toro, Doran, Firkus and Siebers

4. 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](#)

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

Aye: 5 - Meltzer, Del Toro, Doran, Firkus and Siebers

5. **Public Hearing/Appearances**

6. **Action Items**

[23-0654](#)

Anticipated award for Unit N-23, Spot Repairs, Protruding Tap and Mineral Deposit Removal (bids to be opened Monday, June 12, 2023).

Attachments: [Unit N-23 Anticipated Award memo.pdf](#)
[N-23 Contract Award Form.pdf](#)

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

Aye: 5 - Meltzer, Del Toro, Doran, Firkus and Siebers

[23-0655](#)

Request Approval of the Electronic Compliance Maintenance Annual Report (eCMAR) for 2022 and Request the following Resolution be presented to the Common Council for approval:

Whereas, the City of Appleton manages, operates, and maintains a sewer collection system and wastewater treatment plant; and

Whereas, the treatment efforts produce a liquid effluent and a biosolids that are returned to the environment; and

Whereas, the State of Wisconsin evaluates wastewater utilities throughout the State of Wisconsin through an electronic Compliance Maintenance Annual Report (eCMAR); and

Whereas, Appleton received the score of 4.00 GPA; and

Whereas, the State of Wisconsin requests the Common Council pass a resolution accepting the eCMAR report;

Now, therefore, be it resolved by the City Council that the City of Appleton:

Article 1. Continue supporting treatment and maintenance programs at the utility

Article 2. Continue planning efforts that will address and promote long term performance results at the facility.

Attachments: [2022 eCMAR Validated.pdf](#)

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

Aye: 5 - Meltzer, Del Toro, Doran, Firkus and Siebers

[23-0432](#)

Elect a Vice-Chair for the Utilities Committee.

Aldersperson Doran was nominated by Aldersperson Siebers and approved as Vice-Chairperson by unanimous consent.

that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 5 - Meltzer, Del Toro, Doran, Firkus and Siebers

7. Information Items

[23-0433](#)

Confirm Meeting Date and Time for the Utilities Committee to meet.

The Utilities Committee will continue to meet at 4:30 p.m. on the Tuesday following the Common Council meeting.

[23-0434](#)

Designate a Contact Person who can answer specific questions about agenda items for the Utilities Committee.

Director Shaw will continue to be the contact person to answer questions regarding agenda items.

[23-0493](#)

Update on Aquahawk Sign-ups

This item was discussed.

[23-0657](#)

AWWTP Polymer Incident Update

This item was discussed.

[23-0683](#)

Appleton Wastewater SARS-CoV-2 Report

Attachments: [SARS CoV-2 Report 060823.pdf](#)

This item was discussed.

[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](#)

These reports were reviewed.

[23-0559](#)

Monthly Report for April 2023:

- Water Distribution and Meter Team Monthly Report

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

This report was reviewed.

8. Adjournment

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

Aye: 5 - Meltzer, Del Toro, Doran, Firkus and Siebers

Department of Public Works – Engineering Division

MEMO

TO: Utilities Committee

FROM: Danielle Block, Director of Public Works
Pete Neuberger, Deputy Director of Public Works/City Engineer

DATE: July 19, 2023

RE: Amend 2023A Stormwater Management Plan Review contract with Brown and Caldwell by an increase of \$20,000 for a total contact amount not to exceed \$55,000.

The Department of Public Works is requesting an amendment to the contract with Brown and Caldwell (BC) for 2023 Stormwater Management Plan Reviews by an increase of \$20,000 for a total contact amount not to exceed \$55,000. After this contract amendment, \$811,000 will remain in the 2023 stormwater consulting budget.

Due to the number of stormwater management plans submitted in 2023, the number of plans expected to be submitted yet this summer and the coordination needed for larger projects, the original contact amount of \$35,000 is anticipated to be expended within the next two months.

Work under this contract is charged on an hourly basis and is therefore only used as needed. In order to keep projects moving forward, staff is requesting this amendment now, before the current contract is completely spent.



"... meeting community needs ... enhancing quality of life."

DEPARTMENT OF PUBLIC WORKS
Engineering Division
100 North Appleton Street
Appleton, WI 54911
TEL (920) 832-6474

To: Utilities Committee
From: Danielle Block, Director of Public Works
Date: July 19, 2023
Re: Adopt the Proposed Revised Reid Golf Course and Appleton Memorial Park Stormwater Utility Agreements for Stormwater Ponds

The Stormwater Utility provides "annual rent" payment for stormwater ponds located at Reid Golf Course and Appleton Memorial Park. The Utility is responsible for the operations that oversee the collection, distribution and dissipation of stormwater that accumulates within the City of Appleton.

There are currently two ponds within Appleton Memorial Park and one pond at Reid Golf Course. The Appleton Memorial Park agreement was developed in 2010 with an annual payment of \$40,000 and the Reid Golf Course agreement was developed in 2014 with an annual payment of \$15,210.

Land market values and rates of return have been reviewed by city staff and are recommending the following increases to the stormwater pond agreements.

Appleton Memorial Park	\$41,769
Reid Golf Course	\$21,060

Approval of the revised stormwater utility agreements is contingent upon approval by both the Parks and Recreation Committee and the Utilities Committee.

The Department of Public Works request approval of the revised Reid Golf Course and Appleton Memorial Park stormwater utility agreements.

AGREEMENT FOR STORMWATER PONDS AT MEMORIAL PARK

I. PARTIES

- 1.1 **City of Appleton’s Parks, Recreation, and Facilities Management Department**, with its principal place of business at 100 N. Appleton Street, Appleton WI 54911 (hereinafter “City”).
- 1.2 The **Stormwater Utility**, with its principal place of business at 100 N. Appleton Street, Appleton WI 54911 (hereinafter the “the Utility”).
- 1.3 Together, the City and the Utility may be referred to as “the parties”.

II. RECITALS

WHEREAS,

- 2.1 The Utility is responsible for the operations that oversee the collection, distribution, treatment, and dissipation of stormwater that accumulates within the City of Appleton; and
- 2.2 The Utility has previously erected two stormwater ponds at Memorial Park; and
- 2.3 The Parties desire to continue to work together to allow the operation of stormwater ponds within Memorial Park; and
- 2.4 The Parties desire to have the Common Council’s approval of an arrangement whereby the Utility reimburses PRFM for continued use of said stormwater ponds.

III. THE AGREEMENT

NOW, THEREFORE, in consideration of the fulfillment of the obligations of the parties hereinafter set forth and for other good and valuable consideration, the receipt of which is hereby acknowledged, IT IS MUTUALLY AGREED AND PROMISED, by and between the City and the Utility, as follows:

- 3.1 The Utility will provide payment to the City for the annual use of the Appleton Memorial Park North Pond in the amount of \$21,294.
- 3.2 The Utility will provide payment to the City for the annual use of the Appleton Memorial Park South Pond in the amount of \$20,475.

- 3.3 The Parties agree that market values and rates of return will be reviewed prior to June 1st to determine the applicable rent. This value (herein “annual rent”) shall be documented via an addendum to this Agreement and approved by Common Council.
- 3.4 The annual rent shall be paid by the Stormwater Utility by October 1st of each year.
- 3.5 This Agreement shall remain in effect until Common Council modifies the Agreement. Any amendments or addendums shall be memorialized in writing.
- 3.6 This Agreement became effective on _____, the date of approval by the Common Council, as set forth within the attached meeting minutes.

CityLaw A22-0821aka

REID GOLF COURSE AND STORMWATER UTILITY AGREEMENT FOR STORMWATER POND

I. PARTIES

- 1.1 **Reid Golf Course**, a City of Appleton municipal golf course with its principal place of business at 1100 E Fremont Street, Appleton, WI 54915 (hereinafter “Reid”).
- 1.2 The **Stormwater Utility**, a Wisconsin municipal utility with its principal place of business at 100 N. Appleton Street, Appleton WI 54911 (hereinafter the “the Utility”).
- 1.3 Together, Reid and the Utility may be referred to as “the parties”.

II. RECITALS

WHEREAS,

- 2.1 The Utility is responsible for the operations that oversee the collection, distribution, treatment, and dissipation of stormwater that accumulates within the City of Appleton; and
- 2.2 The Utility has previously erected a stormwater pond at Reid; and
- 2.3 The Parties desire to continue to work together to allow the operation of a stormwater pond within Reid; and
- 2.4 The Parties desire to have the Common Council’s approval of an arrangement whereby the Utility annually reimburses Reid Golf Course for continued use of the stormwater pond.

III. THE AGREEMENT

NOW, THEREFORE, in consideration of the fulfillment of the obligations of the parties hereinafter set forth and for other good and valuable consideration, the receipt of which is hereby acknowledged, IT IS MUTUALLY AGREED AND PROMISED, by and between Reid and the Utility, as follows:

- 3.1 The Utility will provide payment to Reid for the annual use of the stormwater pond in the amount of \$21,060.

- 3.2 The Parties agree that market values and rates of return will be reviewed prior to June 1st to determine the applicable rent. This value (herein “annual rent”) shall be documented via an addendum to this Agreement and approved by Common Council.
- 3.3 The annual rent shall be paid by the Stormwater Utility by October 1st of each year.
- 3.4 This Agreement shall remain in effect until Common Council modifies the Agreement. Any amendments or addendums shall be memorialized in writing.
- 3.5 This Agreement became effective on _____, the date of approval by the Common Council, as set forth within the attached meeting minutes.

CityLaw A22-0820aka



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Department of Utilities
Appleton Water Treatment Facility
2281 Manitowoc Road
Menasha, Wisconsin 54952
920-832-5945 ph
920-832-5949 fax

TO: Chairperson Vered Meltzer and Members of the Utilities Committee

CC: Chris Shaw, Utilities Director

FROM: Chris Stempa, Utilities Deputy Director

DATE: July 20, 2023

RE: *Award Contract to Fiberglass Solutions Inc. for Hypochlorite Fiberglass Reinforced Plastic Tank Relining Services in the amount of \$24,262 plus a 15% contingency of \$3,639 for a total not to exceed of \$27,901*

BACKGROUND:

Among the chemicals stored at the AWTF for various treatment purposes, sodium hypochlorite is utilized as a cleaning and disinfection chemical. Sodium hypochlorite is housed in three (3) 10,000-gallon fiberglass-reinforced plastic (FRP) bulk sodium hypochlorite storage tanks. Tank manufacturers typically expect up to 15 years of life when storing 12.5% sodium hypochlorite in an FRP tank before relining is necessary to restore the interior protective coating layers. Bulk Storage Tank No. 1 and No. 2 were relined in 2022 with Tank No. 3 budgeted for 2023.

QUOTE PROCESS:

Four qualified firms were selected based upon their ability to provide relining services described in the RFQ. Two of the four firms were responsive with the others indicating they were unable to meet the scheduled completion date prior to December 31, 2023. Quotations are summarized in Table 1. Fiberglass Solutions provided the least cost quote and could meet the required completion date.

Table 1: Summary of Quotations

Firm	Total Quote
American Fiberglass Tank	DNQ
ECC Corrosion Inc.	\$77,706
Fiberglass Solutions	\$24,262
GPI Composites	DNQ

DNQ: Did not quote.

Utilities Memo

Award Contract to Fiberglass Solutions Inc. for Fiberglass Reinforced Plastic Tank Relining Services

July 20, 2023

Page 2 of 2

RECOMMENDATION:

It is recommended that the Utilities Committee award the contract for FRP tank relining services to Fiberglass Solutions Inc. in the of \$24,262 plus a 15% contingency of \$3,639 for a total not to exceed of \$27,901.

If you have any questions regarding this project please contact Chris Stempa ph: 832-5945

**Appleton Wastewater Treatment Plant
Operations Synopsis
April 2023 – June 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 10 days. Dewatering processes functioned well and converted 18.6 million gallons (MG) of primary digested sludge to biosolids.

Summary of Treatment

Parameter	April	May	June	Quarter Average
Industrial Flow (MG)	29.0	27.1	25.7	27.2
Domestic Flow (MG)	602.3	398.3	265.5	422.0
Total Flow (MG)	631.2	425.4	291.2	449.3
Influent CBOD Load (Avg Daily lbs)	26,507	22,881	26,420	25,269
Influent TSS Load (Avg Daily lbs)	46,043	50,212	65,573	53,943
Influent Phosphorous Load (Avg Daily lbs)	437	461	550	483
Influent Ammonia Load (Avg Daily lbs)	1,809	1,789	2,740	2,113
Effluent CBOD Load (Avg Daily lbs)	784	664	409	619
Effluent TSS Load (Avg Daily lbs)	757	280	164	400
Effluent Phosphorous Load (Avg Daily lbs)	25	18	19	21
Effluent Ammonia Load (Avg Daily lbs)	89	115	140	115
% Treatment Removal of CBOD	97.0	97.1	98.5	97.5
% Treatment Removal of TSS	98.4	99.4	99.7	99.2
% Treatment Removal of Phosphorous	94.3	96.1	96.5	95.6
% Treatment Removal of Ammonia	95.1	93.6	94.9	94.5

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. The contract was subsequently 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 February 2024.
- 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 three existing Belt Filter Press (BFP) units and add one 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 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 due to 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 February 2024 but will likely need to be extended because of the previously mentioned 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 90% complete with project public bidding projected to occur in late 2023 depending on the progress of the Phase I construction.
- Grit Trap Vortex System Drive and Raw Sludge Pump Replacement Projects – McMahon is under contract to provide engineering, contract administration, contract management, field services, and construction management services for the replacement of the grit vortex system drive units (No. 1 and No. 2) including the replacement of a raw sludge pump (No. 2). The original grit vortex system drive units and raw sludge pump are over 20 years old and have reached their useful life. McMahon developed preliminary design plans and specifications during the reporting period and anticipate advertisement as part of public bidding to occur in July 2023.
- 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 in September 2023.

Regulatory Summary

- Monthly Discharge Monitoring reports for April, May, and June 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 late 2023 or 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 recently filled when an existing Wastewater Plant Operator

transferred positions. This in turn left two open Wastewater Plant Operator Positions. Two qualified Operator candidates are presently in the hiring process for the vacant Operator positions with expected start dates in the 3rd quarter of 2023.

- Maintained operations schedules with overtime and deferred maintenance work assignments as a result of the ongoing Wastewater Plant Operator vacancies.

EFFLUENT QUALITY SUMMARY
January 2022/2023 – June 2022/2023

Table 1 – 2022 Monthly Permit Summary

Month	CBOD (mg/L)	TSS (mg/L)	TSS (lbs/day)	P (mg/L)	p ⁽³⁾ (lbs/day)	NH3-N ⁽¹⁾ (mg/L)	Fecal ⁽²⁾ Coliform Colonies/ (100 ml)	Chlorine ⁽²⁾ Residual (mg/L)	pH (s.u.)
<i>Permit Limit</i>	25	30	1,322 ⁽³⁾	1	23 ⁽³⁾	10, 11, 4.4, 18	400 col/100ml Geo.Mean	0.038 mg/L daily	6.0 - 9.0 daily limit
January 2022	6	4	250	0.20	14	1.43	NA	NA	6.1/7.1
February 2022	6	5	345	0.20	13	1.03	NA	NA	6.8/7.0
March 2022	5	4	604	0.19	26	0.66	NA	NA	6.8/7.2
April 2022	5	2	371	0.13	20	0.42	NA	NA	7.1/7.2
May 2022	5	2	171	0.13	13	0.10	168	<0.032	7.0/7.3
June 2022	4	1	118	0.12	14	0.11	5	<0.032	6.9/7.2
					Nov - April Period Average⁽³⁾	17.3			
					May - October Period Average⁽³⁾	14.0			

Table 2 – 2023 Monthly Permit Summary

Month	CBOD (mg/L)	TSS (mg/L)	TSS (lbs/day)	P (mg/L)	p ⁽³⁾ (lbs/day)	NH3-N ⁽¹⁾ (mg/L)	Fecal ⁽²⁾ Coliform Colonies/ (100 ml)	Chlorine ⁽²⁾ Residual (mg/L)	pH (s.u.)
January 2023	5	2	236	0.10	10	0.21	NA	NA	6.8/7.1
February 2023	8	4	419	0.14	15	1.11	NA	NA	6.6/7.3
March 2023	8	4	826	0.13	29	1.76	NA	NA	6.9/7.3
April 2023	4	3	757	0.12	25	0.53	NA	NA	7.0/7.3
May 2023	5	2	280	0.15	18	0.99	2	<0.032	6.9/7.2
June 2023	5	2	164	0.23	19	1.65	4	<0.032	6.5/7.1
					Nov - April Period Average⁽³⁾	18.6			
					May - October Period Average⁽³⁾	18.1			

NOTES:

- 1) Seasonal NH3-N limits: 10 mg/L Jan. 1 – Mar. 31, 11 mg/L Apr. 1 – May 31, 4.4 mg/L June 1 – Sep 30, 18 mg/L Oct 1 – Dec 31.
- 2) Seasonal fecal and residual chlorine limits are in effect May 1st through September 30th. Limit of Detection 0.032 mg/L.
- 3) April 1, 2017 WPDES Reissuance with new TSS limits expressed as monthly concentration limit (mg/L) and loading limit (lbs).
The future TMDL phosphorus limit will be 23 lbs/day expressed as a 6-month average during the months of May – October and November – April.

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							\$ 687,853.00
Hickory Meadows	\$ 16,496.13	\$ 39,715.07	\$ 86,342.34	\$ 66,164.99	\$ 47,542.59	\$ 32,600.64							\$ 288,861.76
Jeff Waldvogel Trkg.	\$ 3,550.74	\$ 6,998.07	\$ 13,327.59	\$ 18,096.78	\$ 21,051.79	\$ 19,501.51							\$ 82,526.48
Nate Waldvogel Trkg.	\$ 3,737.20	\$ 14,627.86	\$ 16,611.32	\$ 16,954.86	\$ 16,692.40	\$ 18,018.94							\$ 86,642.58
Waldvogel Trucking	\$ 1,073.70	\$ 2,169.20	\$ 2,106.81	\$ 2,363.40	\$ 2,348.35	\$ 1,922.67							\$ 11,984.13
2023 Total	\$ 49,632.81	\$ 151,356.17	\$ 253,908.60	\$ 250,623.97	\$ 242,241.59	\$ 210,104.81	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,157,867.95
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: July 19, 2023
 Copies: K. Rindt (via email)
 C. Shaw (via email)
 B. Kreski
 Utilities Committee

**Appleton Water Treatment Plant
Operations Synopsis
April, May, & June 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 Q2 of 2022 (Y/Y) average production increased by over 3%. Production increased by nearly 17% from Q1 of 2023.

Raw Water Quality. Average turbidity Y/Y levels decreased by over 47% from Q2 2022.

Energy Efficiency. Applied electrical energy efficiency Y/Y increased by almost 2% from Q2 2022.

WATER PLANT PARAMETERS	Previous (Q1 2023)			Current (Q2 2023)		
	January	February	March	April	May	June
Water Treated						
Finished (million gallons), total	260.8	235.8	257.6	250.8	307.8	323.8
Finished (million gallons / day), average	8.4	8.4	8.3	8.4	9.9	10.8
Electrical Energy (WTF)						
Consumption (Megawatt-hours)	453.4	410.9	451.3	418.6	495.2	553.1
MWH / million gallons produced	1.7	1.7	1.8	1.7	1.6	1.7
Lake Turbidity (NTU), average	1.53	1.15	1.16	7.86	5.42	8.48
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)	33.8	35.15	37.29	44.42	56.7	70.93
Turbidity (NTU), average	0.04	0.05	0.05	0.05	0.04	0.04
%<0.15 NTU standard	100	100	100	100	100	100
pH (SU), average	8.8	8.8	8.8	8.4	8.4	8.3
Total Chlorine (mg/L)	2.07	2.19	2.19	2.18	2.08	2.13
Fluoride (mg/L)	0.69	0.73	0.71	0.68	0.69	0.71
Orthophosphate (mg/L)	0.62	0.63	0.65	0.76	0.69	0.75

Project Updates

- Compressor Air Systems Replacement: McMahon Associates, Inc. (McMahon) completed the public bid plans and specifications during the reporting period. Public bidding concluded on June 7, 2023. Rhode Brothers, Inc. was the least cost responsive bidder. Common Council approved contract award to Rhode Brothers on June 21st and the formal notice of award was issued on June 23rd. Construction is anticipated to begin sometime in the 3rd quarter with final project completion projected late 2023 or early 2023 depending upon equipment lead times.
- Phosphoric Acid System Addition: McMahon Associates, Inc. (McMahon) completed the public bid plans and specifications during the reporting period. Public bidding concluded on April 25, 2023 with August Winter and Son being awarded the project. Due to WDNR requirements, construction will need to be completed by May of 2024.
- Redundant Raw Water Piping Project: PTS proceeded with the construction of a second 36-inch diameter pipe from the lake station to the water plant during the reporting period. Work also included the construction of a new water transmission from the water plant extending down Manitowoc Road and reconnecting to the existing transmission line on Oneida Street.

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 cleaned, inspected, and returned to service.
- Harrison sanitary meter replacement and calibration successfully completed at Water Plant.
- Softeners #1 and #2 were returned to service.

- Softener #3 was taken out of service for cleaning and inspection.
- Parking lot hardscape project commenced.
- 2nd Raw water line piping project ongoing.

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 -

YEARLY WATER MAIN BREAK COMPARISON

MONTH 22	MONTH 23	YTD 22	YTD 23
4	2	70	28

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>
1924 E. Melrose Ave.	5/25/2023	309269	CIP	6"	1953	3" Hole	5 Hours	500,000	\$3,040.00	\$12,040.00
NOTES: The break was found due to water surfacing on the road. The duration was calculated by the time the water surfacing was called in and the soil saturation.										
E. Melrose Ave. & N. Alexander St.	5/28/2023	309269	CIP	6"	1953	Two 2" Holes	16 Hours	1,084,822	\$6,595.72	\$15,595.72
NOTES: The break was found due to water surfacing on the road. The duration was calculated by the time the water surfacing was called in by a resident.										
									Total Cost =	\$27,635.72

*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.

WATER MAIN BREAK/ JOINT LEAK REPORT - June 2023

YEARLY WATER MAIN BREAK COMPARISON

MONTH 22	MONTH 23	YTD 22	YTD 23
6	3	76	31

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>
324 E. Franklin St.	6/9/2023	309269	CIP	6"	1912	2" Hole	6 Hours	243,115	\$1,478.14	\$10,478.14
NOTES: The break was called in by a locator. The duration was calculated by the soil saturation.										
Natures Way & Mistflower Cir.	6/11/2023	309269	DIP	36"	1999	4" Hole	16 Hours	1,658,491	\$10,083.63	\$19,083.63
NOTES: The break was found due to a call in by a resident. The duration was calculated by the time of the resident's call and the amount of water bubbling.										
2110 E. Emmers Dr.	6/15/2023	309269	CIP	8"	1965	5" Hole	3 Hours	804,026	\$4,888.48	\$13,888.48
NOTES: The break was found due to a call in from APD. The duration was calculated by the water bubbling and washout under the road.										
									Total Cost =	\$43,450.24

*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.