



# City of Appleton

100 North Appleton Street  
Appleton, WI 54911-4799  
[www.appleton.org](http://www.appleton.org)

## Meeting Agenda - Final Utilities Committee

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Tuesday, January 10, 2023

4:30 PM

Council Chambers, 6th Floor

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1. Call meeting to order
2. Roll call of membership
3. Approval of minutes from previous meeting  
[23-0002](#) Approval of the December 13, 2022 Utilities Committee Meeting minutes.

**Attachments:** [December 13, 2022 Utilities Committee Meeting Minutes.pdf](#)

#### 4. Public Hearings/Apearances

#### 5. Action Items

- [23-0003](#) Award sole source purchase of Goulds axial flow pump from Crane Engineering in the amount of \$133,876.

**Attachments:** [Utilities Committee Blended Sludge Pump 12-29-22.pdf](#)

- [23-0032](#) Award axial flow sludge blending pump impeller repair contract to August Winter and Sons in the amount of \$23,000 with a 15% contingency of \$3,450 for a total not to exceed \$26,450.

**Attachments:** [230106\\_Blended Sludge Pump Repair Contract Award Memo.pdf](#)

#### 6. Information Items

- [23-0022](#) Appleton Wastewater Treatment Plant Update regarding the Polymer Incident of December 26, 2023.

**Attachments:** [Polymer Incident Memo and Diagram 010523.pdf](#)

- [23-0004](#) Monthly Report for November 2022:  
- Water Distribution and Meter Team Monthly Report

**Attachments:** [Water Main Breaks - November 2022.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.*

*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

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Tuesday, December 13, 2022

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:** 5 - Meltzer, Doran, Firkus, Jones and Schultz

3. Approval of minutes from previous meeting

[22-1533](#)

Approval of the October 25, 2022 Utilities Committee Meeting minutes.

**Attachments:** [October 25, 2022 Utilities Committee Meeting minutes.pdf](#)

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

**Aye:** 5 - Meltzer, Doran, Firkus, Jones and Schultz

4. Public Hearings/Appearances

5. Action Items

[22-1534](#)

Award 2023A Stormwater Consulting Services Contract for 2023 Stormwater Management Plan Reviews to Brown and Caldwell in an amount not to exceed \$35,000.

**Attachments:** [2023A Plan Review Award Util Memo BC.pdf](#)

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

**Aye:** 5 - Meltzer, Doran, Firkus, Jones and Schultz

[22-1535](#)

Award of 2023B Stormwater Consulting Services Contract for 2023 Stormwater Management Plan Reviews to raSmith in an amount not to exceed \$35,000.

**Attachments:** [2023B Plan Review Award Util Memo raSmith.pdf](#)

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

**Aye:** 5 - Meltzer, Doran, Firkus, Jones and Schultz

[22-1536](#)

Award 2022G Stormwater Consulting Services Contract for the French Road Urbanization Study with McMahon Associates Inc. in an amount not to exceed \$46,354.

**Attachments:** [2022G French Rd Urbanization McM Award Memo.pdf](#)

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

**Aye:** 5 - Meltzer, Doran, Firkus, Jones and Schultz

[22-1550](#)

Amend 2021D Stormwater Consulting Services Contract for Lightning Drive Extension Final Design with raSmith in an amount not to exceed \$25,000.

**Attachments:** [2021D Lightning Drive Final Design Contract Amendment Memo 12-07-2022 FINAL.pdf](#)

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

**Aye:** 5 - Meltzer, Doran, Firkus, Jones and Schultz

[22-1556](#)

Approval to sole source and award 2022J contract for Conkey Pond Regional Pond Model Update, in an amount not to exceed \$36,910.

**Attachments:** [2023 Conkey Pond model update BC award.pdf](#)

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

**Aye:** 5 - Meltzer, Doran, Firkus, Jones and Schultz

## 6. Information Items

[22-1537](#)

2023 Joint Chemical Consortium Quotation Awards

**Attachments:** [2023 Chemical Award Memo.pdf](#)

*This item was discussed.*

[22-1600](#)

Wisconsin State Laboratory of Hygiene COVID Report

**Attachments:** [SARS CoV2 Report 120822.pdf](#)

*This item was discussed.*

[22-1538](#)

Monthly Report for October 2022:  
-Water Distribution and Meter Team Monthly Report

**Attachments:** [Water Main Breaks - October 2022 .pdf](#)

*This item was presented.*

7. Adjournment

**Firkus moved, seconded by Jones, that the Utilities Committee Meeting be adjourned at 4:44 p.m.. Roll Call. Motion carried by the following vote:**

**Aye:** 5 - Meltzer, Doran, Firkus, Jones and Schultz



“Meeting community needs...enhancing quality of life.”

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Department of Utilities  
Wastewater Treatment Plant  
2006 E Newberry Street  
Appleton, WI 54915-3128  
920-832-5945 tel.  
920-832-5949 fax

**To:** Chairperson Vered Meltzer and Members of the Utilities Committee

**From:** Utilities Director Chris Shaw

**CC:** Chris Stempa, Utilities Deputy Director  
Kelli Rindt, Enterprise Fund Accounting Manager

**Date:** December 29, 2022

**Re:** *Action: Award sole source purchase of Goulds axial flow pump from Crane Engineering in the amount of \$133,876*

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**BACKGROUND:**

The Appleton Wastewater Treatment Plant (AWWTP) utilizes two large axial flow pumps in the solids operations train. These axial flow pumps have reliably operated since the late 1970's to blend post digested sludge to a homogenous state. That state of homogeneity is necessary for dewatering equipment and chemical delivery systems to optimize and reach engineered design conditions.

In November, it was discovered that the impeller on one of the axial flow pumps failed. This failed state makes the pump unusable and AWWTP staff are reduced to operating the remaining pump which reduces overall capacity by 50%. Staff are not able to perform an expedited repair because of the condition of the impeller. A custom fabricated replacement impeller was sought. However, the lead time could be up to 24 weeks and initial indication was that they would not warranty the replacement part because of the age and absence of existing equipment design drawings that would otherwise be relied upon to replicate fabricated parts.

A direct replacement axial flow pump was found available through Crane Engineering (Crane). Crane is the authorized distributor of this pump in Wisconsin. They provided a quote for a 5 month lead time, stainless steel pump (\$133,876).

The Utilities Department consulted Mayor Woodford regarding emergency purchase authorization because of the critical nature of this pump to wastewater treatment operations, the unique nature of the equipment, and the long lead time of even an expedited purchase. Mayor Woodford granted emergency purchased authorization of a cancellation expense of 15 percent of the purchase cost should the committee choose not to authorize the purchase. In

short, this approval under emergency authorization, will allow for a shorter lead time on the pump. As such, a purchase order submitted to Crane on Thursday, December 29, 2022. Notably, this pump failure was prior to the polymer incident on December 26, 2022.

**RECOMMENDATION:**

The Utilities Department is seeking authorization to procure the stainless-steel pump sole source from Crane Engineering in the amount of \$133,876. It should be noted that there is a cancellation fee associated with this purchase. If this purchase was denied by the Utilities Committee or Common Council, The Utilities Department would be subject to \$20,081 fee or 15% of the original purchase price.

If you have any questions regarding the project or the associated change order, please contact Chris Shaw at 832-2362.



“Meeting community needs...enhancing quality of life.”

Department of Utilities  
Wastewater Treatment Plant  
2006 E Newberry Street  
Appleton, WI 54915-3128  
920-832-5945 tel.  
920-832-5949 fax

**To:** Chairperson Vered Meltzer and Members of the Utilities Committee

**From:** Chris Stempa, Utilities Deputy Director

**CC:** Utilities Director Chris Shaw  
Kelli Rindt, Enterprise Fund Accounting Manager

**Date:** January 6, 2023

**Re:** **Action:** *Award axial flow sludge blending pump impeller repair contract to August Winter and Sons in the amount of \$23,000 with a 15% contingency of \$3,450 for a total to not exceed \$26,450*

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#### **BACKGROUND:**

The Appleton Wastewater Treatment Plant (AWWTP) utilizes two large axial flow pumps in the solids operations train. These axial flow pumps have reliably operated since the late 1970's to blend post digested sludge to a homogenous state. In November 2022, the impeller on one of the axial flow pumps failed making it unusable. Four companies were asked to submit quotes for the repair of the failed impeller. Lead time is a critical consideration because of the 50% loss of overall blending capacity. Noteworthy is that the lead time of a new replacement pump (separate memorandum, dated December 29, 2022) is 5-months. Only two of the four firms that were contacted provided quotes. Reasons cited included the age of the equipment, questions or concerns pertaining to the repair in the absence of explicit design drawings, and/or the short lead time desired by the city.

**Table 1: Quote Summary**

<b>Company</b>	<b>Quote</b>	<b>Estimated Lead Time</b>
August Winter and Sons	\$23,000	2-3 weeks
Sabel Mechanical	\$24,555 \$31,915	10-weeks 6-weeks (expedited)
Staab Construction	Did not Quote	
EMNOR	Did not Quote	

#### **RECOMMENDATION:**

Approval of the axial flow pump impeller repair contract to August Winter and Sons, Inc. in the amount of \$23,000 with a 15% contingency of \$3,450 for a total not to exceed \$26,450.

If you have any questions regarding the project or the associated change order, please contact Chris Stempa at 832-2353.





Department of Utilities  
Wastewater Treatment Plant  
2006 E Newberry Street  
Appleton, WI 54915  
920-832-5945 tel.  
920-832-5949 fax

**TO:** Chairperson Vered Meltzer and Members of the Utilities Committee

**FROM:** Chris Shaw, Utilities Director

**DATE:** January 5, 2023

**RE:** *Appleton Wastewater Treatment Plant Update regarding the Polymer Incident of December 26, 2023*

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**BACKGROUND:**

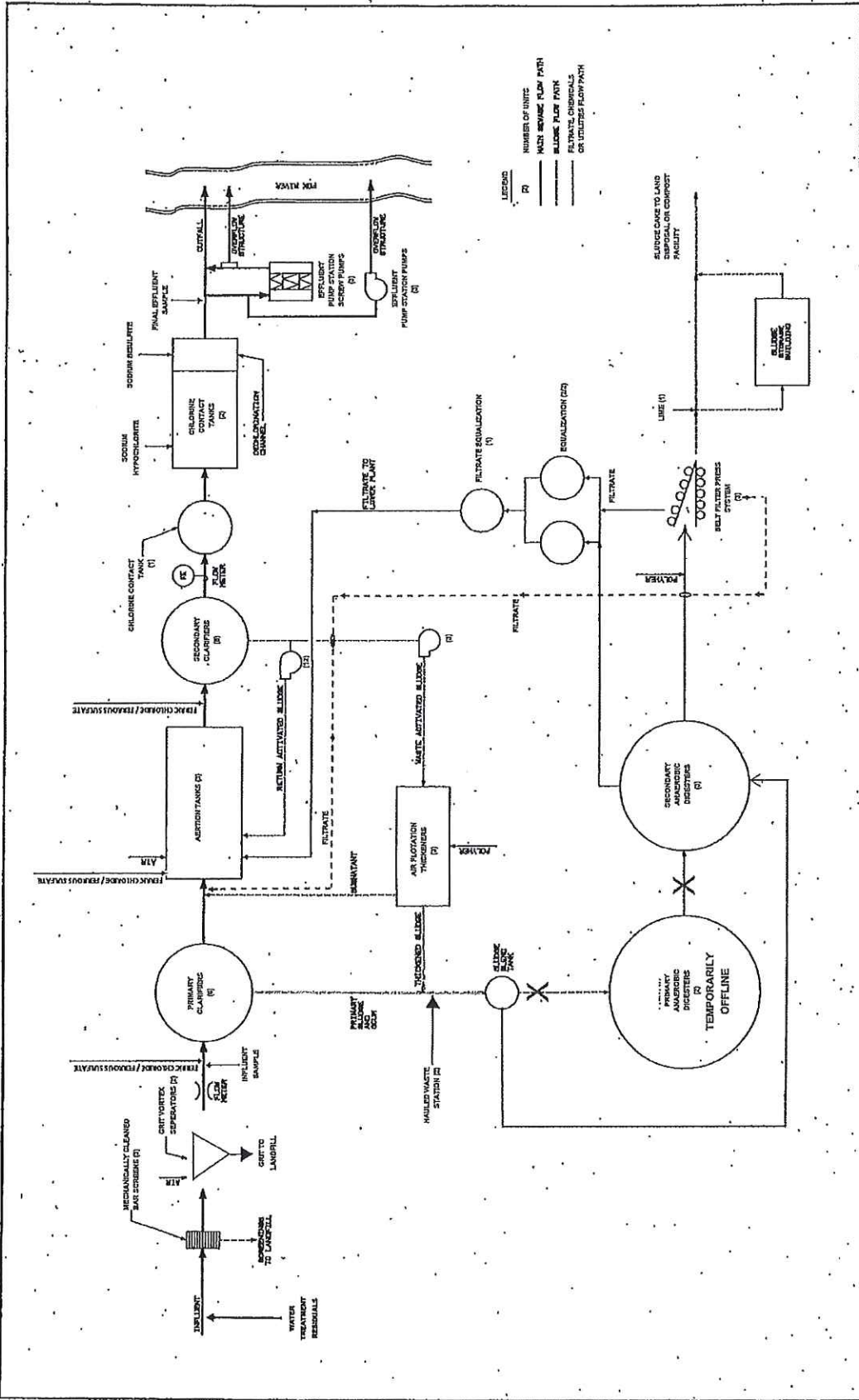
On Monday, December 26, a processing polymer chemical used for dewatering was off-loaded into the Hauled Waste Station. This resulted in equipment and pipe plugging, disrupting plant operations. Anaerobic digestion equipment was most impacted with loss of feed, gas mix, heating, and circulation. The plant staff paused all solids treatment to the digesters while a regulatory approval was being sought to bypass the digesters. With regulatory approval, the plant returned to functional treatment operations without digestion in the solids train.

Impacts of the process change are loss of methane production for heating the digesters and 17 campus buildings, pause of the Hauled Waste Program, and a degradation of the quality of plant solids produced in the treatment process. A return to anaerobic digestion will be needed to meet the Wisconsin Pollution Discharge Elimination System (WPDES) permit requirements for our solid waste. Without digestion, the solids produced will have to be disposed of in a landfill. The plant effluent which is discharged to the Fox River has not been impacted from the change in the solids train.

Plant remediation efforts to date include inventorying, isolating, and removing the product from process equipment. Treatment assessments and repairs are underway with staff and contractors. Support has come from other city departments, contractors, and McMahon Associates.

The Utilities Committee will continue to receive regular updates as we work to resolve this incident.

If you have any questions regarding this process, please contact me at ph: 920-832-5945.



THIS DRAWING REDUCED TO HALF SIZE

CITY OF APPLETON			WASTEWATER TREATMENT SYSTEM	
NO.	DATE	BY	SCALE	PROJECT NO.

WASTEWATER TREATMENT SYSTEM

## WATER MAIN BREAK/ JOINT LEAK REPORT -

### YEARLY WATER MAIN BREAK COMPARISON

MONTH 21	MONTH 22	YTD 21	YTD 22
24	9	122	108

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>
E. Newberry St./N. White Oak Dr.	11/1/2022	309269	CIP	8"	1964	1/32" Crack, 12" Split	154 Days	13,407,100	\$81,515.17	\$90,515.17
NOTES: The break was found by correlating. The duration was calculated by the last time the hydrant was tested.										
140 Ramlen Ct.	11/20/2022	309269	CIP	6"	1957	1/8" Crack, 3/4" Hole	4 Hours	113,960	\$692.88	\$9,692.88
NOTES: The break was found due to a call in by a resident. The duration was calculated by the amount of water bubbling and the mud on the road.										
Meade St./Marquette St.	11/21/2022	309269	CIP	6"	1951	1/8" Crack	8 Hours	192,966	\$1,173.23	\$10,173.23
NOTES: The break was found due to a call in by a resident. The duration was calculated by the amount of water and the time of the resident's call.										
19 Linden La.	11/22/2022	309269	CIP	8"	1969	1/8" Crack	8 Hours	243,115	\$1,478.14	\$10,478.14
NOTES: The break was found due to a call in by a resident. The duration was calculated by the amount of water and the time of the resident's call.										
Witzke Boulevard	11/23/2022	309269	CIP	8"	1971	1/16" Crack	4 Hours	145,869	\$886.88	\$9,886.88
NOTES: The break was found due to water surfacing in the road. The duration was calculated by the soil saturation and the time the water surfacing was called in.										

\*\*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)
Witzke Boulevard	11/23/2022	309269	CIP	8"	1971	1/8" Crack	4 Hours	137,526	\$836.16	\$9,836.16
NOTES: The break was found due to a call in by a resident. The duration was calculated by the amount of water and the time of the resident's call.										
1617 W. Cloverdale Dr.	11/25/2022	309269	DIP	8"	1978	4" Hole	4 Hours	648,305	\$3,941.69	\$12,941.69
NOTES: The break was found due to water bubbling above ground. The duration was calculated from the time we became aware of the break until it was repaired.										
2116 N Birchwood Ave.	11/28/2022	309269	CIP	8"	1964	8" Split, 1/32" Crack	138 Days	7,847,620	\$47,713.53	\$56,713.53
NOTES: The break was found by correlating. The duration was calculated by the soil saturation, the water under the roadways, and the last time the hydrant was tested.										
2200 S. Greenview St.	11/29/2022	309269	CIP	8"	1955	1/8" Crack, 1" Hole	5 Hours	221,932	\$1,349.35	\$10,349.35
NOTES: The break was found due to a call in by a resident. The duration was calculated by the amount of water bubbling and the time of the call.										
									<b>Total Cost =</b>	<b>\$220,587.03</b>

\*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.