



City of Appleton

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

Meeting Agenda - Final Utilities Committee

Tuesday, January 23, 2018

5:00 PM

Council Chambers, 6th Floor

1. Call meeting to order

2. Roll call of membership

3. Approval of minutes from previous meeting

[18-0001](#) Approval of the December 12, 2017 Utilities Committee Meeting Minutes.

Attachments: [December 12, 2017 Utilities Committee Meeting minutes.pdf](#)

4. **Public Hearings/Apearances**

5. **Action Items**

[18-0099](#) Preliminary Resolution 1-P-18 for Sanitary Sewer Laterals be adopted and refer the matter to the Finance Committee to determine the assessment rate.

Attachments: [1-P-18.pdf](#)

[18-0104](#) Request to add Sanitary Sewer and Storm Sewer construction on Durkee Street between Atlantic Street and Summer Street to our 2018 Reconstruction Program.

Attachments: [Durkee Street Sanitary Sewer and Storm Sewer Construction.pdf](#)

6. **Information Items**

[18-0101](#) Request to Over Hire - Wastewater Operations Supervisor

Attachments: [Ops Supervisor Overhire.pdf](#)

[18-0100](#) Water Main Break History Graph for 2018.

Attachments: [2018 Water Main Break History Graph.pdf](#)

18-0002

Monthly Reports for October, November, December 2017:

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

Attachments: [2017 Q4 Wastewater Treatment Plant Synopsis.pdf](#)
[2017 Q4 Water Treatment Plant Synopsis.pdf](#)
[Water Meter Team Reports November 2017.pdf](#)
[Water Meter Team Reports December 2017.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 Paula Vandehey at 920-832-6474.



City of Appleton

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Meeting Minutes Utilities Committee

Tuesday, December 12, 2017

5:00 PM

Council Chambers, 6th Floor

1. Call meeting to order

Chairperson Dannecker called the Utilities Committee meeting to order at 5:00 p.m.

2. Roll call of membership

Present: 5 - Dannecker, Baranowski, Meltzer, Reed and Dvorachek

3. Approval of minutes from previous meeting

17-1921

Approval of the November 7, 2017 Utilities Committee Meeting minutes.

Attachments: [November 7, 2017 Utilities Committee Meeting Minutes.pdf](#)

Baranowski moved, seconded by Meltzer, that the Minutes be approved. Roll Call. Motion carried by the following vote:

Aye: 4 - Dannecker, Baranowski, Meltzer and Reed

Absent: 1 - Dvorachek

4. Public Hearings/Appearances

5. Action Items

17-1922

CRITICAL TIMING - Award 2017F Evergreen Drive and Alvin Street Stormwater Management Design and Permitting, in an amount not to exceed \$59,700 with McMahon Associates, Inc.

Attachments: [2017 Evergreen Alvin DESIGN Contract Award.pdf](#)

Action Items were taken out of order.

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

Aye: 5 - Dannecker, Baranowski, Meltzer, Reed and Dvorachek

17-1923

Approve modifications to Municipal Code, Chapter 20 Section 20-237, regarding Bed & Breakfast Classification and minimum charges.

Attachments: Stormwater - 20-237 changes.pdf

Action Items were taken out of order.

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

Aye: 5 - Dannecker, Baranowski, Meltzer, Reed and Dvorachek

17-1924

Award 2018 Stormwater Management Plan Review to raSmith in an amount not to exceed \$50,000.

Attachments: 2018A SWM Plan Review Memo Util Cmte.pdf
 2018A SWM Plan Review Memo Util Cmte REVISED.pdf

Action Items were taken out of order.

A revised memo is attached to the report.

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

Aye: 5 - Dannecker, Baranowski, Meltzer, Reed and Dvorachek

17-1925

Approve updated Water Leak Policy based on feedback from the Public Service Commission.

Attachments: Water Leak Policy 6-22-17 (strike bold).pdf
 Water Leak Policy 6-22-17 (clean copy).pdf
 PSC page X-4.pdf

Alderperson Dvorachek arrived at 5:05 p.m.

Action Items were taken out of order.

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

Aye: 5 - Dannecker, Baranowski, Meltzer, Reed and Dvorachek

6. Information Items

17-1926

Award Appleton Wastewater Treatment Iron Salt Room Rehabilitation Project to August Winter & Sons, Inc. Construction in the amount of \$398,575 with a 15% contingency of \$59,786 for a project total not to exceed \$458,361. This item was an Action Item at the December 6, 2017 Finance Committee Meeting.

Attachments: AWWTP Iron Salt Room Rehab Contract.pdf

This item was presented.

17-1927

Stormwater Projects Update.

Attachments: December 12 2017 Util Com Update Final.pdf

This item was presented.

17-1928

Monthly Reports for October 2017
- Water Distribution and Meter Team Monthly Report

Attachments: Water Meter Team Reports October.pdf

This item was presented.

7. Adjournment

Baranowski moved, seconded by Meltzer, that the Utilities Committee meeting be adjourned at 5:50 p.m. Roll Call. Motion carried by the following vote:

Aye: 5 - Dannecker, Baranowski, Meltzer, Reed and Dvorachek

SANITARY LATERALS

RESOLUTION 1-P-18

PRELIMINARY RESOLUTION DECLARING INTENT TO EXERCISE SPECIAL ASSESSMENT POWERS UNDER SECTION 66.0703 (7) (a), WISCONSIN STATUTES OF 2011-2012.

RESOLVED, by the Common Council of the City of Appleton, Wisconsin:

1. The Common Council hereby declares its intention to exercise its powers under Section 66.0703, Wisconsin Statutes, to levy special assessments upon property within the following described area for benefits conferred upon such property by improvement of the following area.

SANITARY LATERALS

Telulah Avenue from Calumet Street to Marion Street

2. The total amount assessed against such property shall not exceed the total cost of the improvements. The Common Council determines that such improvements shall be made under the police power and the amount assessed against each parcel shall be on a cost per front foot, area or unit cost basis.

3. The assessments against any parcel may be paid to the Finance Department on receipt of Special Assessment Notice by one of the following:

- a. In cash, or if entered on the Tax Roll;
- b. One installment, if the assessment is \$1000 or less;
- c. In five equal annual installments, if the assessment is greater than \$1000;

Deferred payments shall bear an interest at the rate of 6.75% per annum on the unpaid balance.

4. The Finance Committee is directed to prepare a report consisting of:

- a. Preliminary plans and specifications for said improvements.
- b. An estimate of the entire cost of the proposed street improvements.
- c. A schedule of proposed assessments showing the properties that are benefited by the work or improvements.

Upon completing such report, the Finance Committee is directed to file a copy thereof in the office of the City Clerk for public inspection.

5. Upon receiving the report of the Finance Committee, the City Clerk is directed to give notice of a public hearing on such report as specified in Section 66.0703 (7) (a), Wisconsin Statutes. The hearing shall be held at the Council Chambers in the City Hall at a time set by the City Clerk in accordance with Section 66.0703 (7) (a), Wisconsin Statutes.

S/TIMOTHY M. HANNA (Mayor)

Adopted: February 7, 2018

Attest: Kami L. Lynch (City Clerk)




Department of Public Works – Engineering Division

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

MEMO

TO: Utilities Committee
Finance Committee

FROM: Mark Lahay, Assistant City Engineer 

DATE: January 17, 2018

RE: Request to add Sanitary Sewer and Storm Sewer construction on Durkee Street between Atlantic Street and Summer Street to our 2018 Reconstruction Program.

Durkee Street from Atlantic Street to Summer Street was originally programmed to be a partial asphalt construction which generally means that the asphalt surface is replaced along with some minor curb and gutter replacement and does not require the underground utilities to be reconstructed. However, after reviewing the condition of this street last fall, we decided that it should be moved to the total reconstruction program.

This prompted us to review the underground utilities. With the longer life expectancy of a total reconstruction street, our review revealed that the sanitary sewer and storm sewer should be reconstructed as well. We are asking that these projects be added to the 2018 Capital Improvement Program. The cost of this work is estimated to be \$94,560 for the sanitary and \$37,825 for the storm.

We have already opened bids on one of our large sewer and water projects for this year and received very favorable bids. We have sufficient positive bid variance to cover the costs of the Durkee Street sanitary sewer and storm sewer without adding any funding to the 2018 budget.

Therefore, we request approval to add Durkee Street sanitary sewer and storm sewer to our 2018 Reconstruction Program.



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

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

To: Curt Konetzke and members of the Human Resources Committee
CC: Greg Dannecker and members of the Utilities Committee
Kelli Rindt, Deputy Director of Finance
From: Chris Shaw, Utilities Director
Date: 1/10/2018
Re: *Request to Over Hire - Wastewater Operations Supervisor*

The current Wastewater Operations Supervisor will be retiring on March 30, 2018. The position is critical in the Utility's table of organization. The incumbent has 30+ years of experience of which the last ten have been spent in the current supervisor position.

The position responsibilities include, but are not limited to, supervising 12 operations and maintenance staff, process control decisions for the physical, chemical, and biological processes, and regulatory reporting for state and federal requirements. Furthermore, this supervisor manages the corrective and preventative maintenance programs of the facility and facilitates capital project integration (e.g., \$1.3M of AWWTP improvements in 2018).

In order for a successful transition of the position's successor, I feel the City would benefit from having the incumbent transfer his significant institutional knowledge over a twenty day, over hire, period.

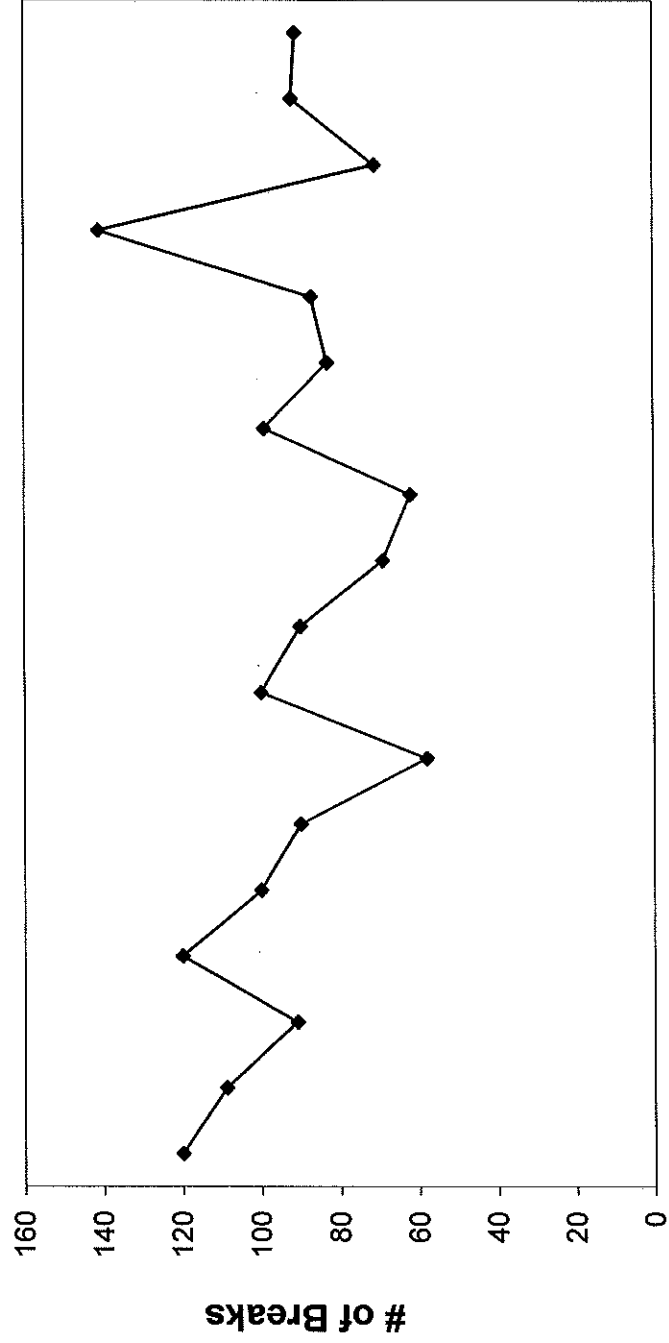
The financial impact for this proposal is approximately \$6,005. The proposed funding to cover this cost will be to utilize vacant salary dollars. As such, no additional budget will be requested.

<u>YEAR</u>	<u>BREAKS</u>
2000	120
2001	109
2002	91
2003	120
2004	100
2005	90
2006	58
2007	100
2008	90
2009	69
2010	62
2011	99
2012	83
2013	87
2014	141
2015	71
2016	92
2017	91

TOTAL = 1673

Average : 92.9

Water Main Break History



Years 2000 - 2017

Appleton Wastewater Treatment Plant

Synopsis

October 2017 - December 2017

Wastewater Treatment Program

- The Appleton Wastewater Treatment Plant (AWWTP) final effluent met all Wisconsin Department of Natural Resources (WDNR) discharge monitoring reporting limits including carbonaceous biochemical oxygen demand (CBOD), total suspended solids (TSS), pH, phosphorous, and ammonia. (See Table 1). The plant maintained good treatment and a healthy microbiological population with a sludge retention time of seven and one half days. Dewatering processes functioned well and converted 14.4 Million Gallons (MG) of primary digested sludge to biosolids.

Table 1 - Summary of Treatment

Parameter	October	November	December	Average
Industrial Flow (MG)	57.4	52.2	53.8	54.5
Domestic Flow (MG)	280.9	252	239.1	257.3
Total Flow (MG)	338.3	304.2	292.9	311.8
Influent CBOD Load (lbs)	875,873	826,489	841,740	848,034
Influent TSS Load (lbs)	1,547,328	1,407,430	1,596,602	1,517,120
Influent Phosphorous Load (lbs)	18,954	15,627	15,527	16,703
Influent Ammonia Load (lbs)	66,707	67,887	72,356	68,983
Effluent CBOD Load (lbs)	10,686	14,483	13,549	12,906
Effluent TSS Load (lbs)	12,644	11,580	12,654	12,293
Effluent Phosphorous Load (lbs)	643	530	624	599
Effluent Ammonia Load (lbs)	1,591	5,291	14,295	7,059
% Treatment Removal of CBOD	98.8%	98.2%	98.4%	98.5%
% Treatment Removal of TSS	99.2%	99.2%	99.2%	99.2%
% Treatment Removal of Phosphorous	96.6%	96.6%	96.0%	96.4%
% Treatment Removal of Ammonia	97.6%	92.2%	80.2%	90.0%

Work in Progress:

- 2017 Appleton Wastewater Plant Improvement Project:** This project is comprised of four individual capital improvement projects which includes WAS Pumping System Replacement, High Pressure Blower #3 Replacement, Digester Biogas Mix Compressor Glycol Cooling System, and Final Effluent Firm Pump Capacity Improvements. During the reporting period Donohue & Associates continued preliminary design services associated with the improvements project. This includes engineering services as part of the updated hydraulic analysis (*may reference October 3, 2017 Utilities Informational Memorandum for additional details*). The tentative start of the construction bidding phase is June 2018.
- Chemical Storage Room Rehab/Improvements Project:** On December 6, 2017 Common Council approved contract award August Winter & Sons Inc. A pre-construction meeting will be scheduled for January 2018.
- Biogas Utilization Study Update: Donohue:** Updated biogas characteristic testing was conducted in early October 2017. The gas testing and analysis was completed in advance of McCotter Energy Systems (original equipment manufacturer representative) scheduled site visit on October 23, 2017 as part of inspection of the existing Hurst biogas boilers. This information is being utilized by

Donohue to assess alternative operational set points, automated controls, and various operational strategies that will provide more reliable boiler equipment operation under various gas quality conditions. The findings and recommendations will be used to appropriately evaluate the other alternatives listed within the draft Digester Gas Utilization Report.

- **Spartan Drive Lift Station:** The AWWTP is supporting the Department of Public Works as part of the new Spartan Drive lift station construction project. Equipment start-up and testing activities commenced on December 8, 2017 and were completed on December 15, 2017. Official start-up of the Spartan Drive lift station is scheduled to occur in early January 2018 concurrent with successful abandonment of the Clearwater Creek lift station.

Regulatory Summary

- Monthly Discharge Monitoring reports for October, November and December were filed electronically on time for regulatory compliance. The 2017 4th quarter short form was also submitted.

Laboratory Program

- Program objectives for regulatory and process sampling and analysis were met including results for the Discharge Monitoring Report (DMR) and Health Department pool testing program.
- Lab personnel completed the analysis of Single Blind Proficiency samples for laboratory recertification.
- Lab staff conducted compliance monitoring sampling and pretreatment monitoring sampling to complete compliance with 2017 requirements.

EFFLUENT QUALITY SUMMARY

July - December 2016/2017

Table 1 – 2016 Monthly Permit Summary

Month	CBOD (mg/L)	TSS (mg/L)	TSS (lbs/day)	P (mg/L)	P (lbs/day)	NH3-N ⁽¹⁾ (mg/L)	Fecal Coliform Colonies/ (100 ml)	Chlorine ⁽²⁾ Residual (mg/L)	pH (s.u.)
<i>Permit Limit</i>	25	30	1,322 ⁽³⁾	1.0	23 ⁽³⁾	10, 11, 4.4, 18	400 col/100ml Geo.Mean	0.038 mg/L daily	6.0 - 9.0 daily limit
July	4	3	245	0.39	33.8	0.74	7	<0.01	7.0/7.2
August	4	3	196	0.42	31.7	1.92	3	<0.01	7.0/7.2
September	4	2	229	0.28	27.7	1.51	15	<0.01	6.8/6.9
October	5	4	342	0.70	62.4	3.54	NA	NA	6.5/6.9
November	5	5	447	0.42	35.9	1.45	NA	NA	6.5/6.8
December	3	4	406	0.27	27.8	0.59	NA	NA	7.0/7.1

Table 2 – 2017 Monthly Permit Summary

Month	CBOD (mg/L)	TSS (mg/L)	TSS (lbs/day)	P (mg/L)	P (lbs/day)	NH3-N ⁽¹⁾ (mg/L)	Fecal Coliform Colonies/ (100 ml)	Chlorine ⁽²⁾ Residual (mg/L)	pH (s.u.)
July	3	2	231	0.17	15.8	1.10	19	<0.01	7.1/7.4
August	4	4	317	0.26	22.9	1.14	9	<0.01	7.1/7.4
September	4	3	284	0.30	25.4	0.66	23	<0.01	7.1/7.3
October	4	5	408	0.23	20.7	0.56	NA	NA	7.1/7.2
November	6	5	386	0.21	17.7	2.01	NA	NA	7.0/7.1
December	6	5	408	0.25	20.1	5.9	NA	NA	7.1/7.3

NOTES:

- 1) Seasonal NH3-N limits: 10 mg/L Jan. 1 – Mar. 31, 11 mg/L Apr. 1 – May 31, 4.4 mg/L Sep 30 – Sep 30, 18 mg/L Oct 1 – Dec 31.
- 2) Seasonal fecal and residual chlorine limits are in effect May 1st through September 30th. * April 1, 2017 WPDES Reissuance with new TSS limits expressed as monthly concentration limit (mg/L) and loading limit (lbs).
- 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.

YEAR 2017 RECEIVING STATION REVENUE

Hauler	January	February	March	April	May	June	July	August	September	October	November	December	Y-T-D Total
A & B Leist Trucking	\$ 118,361.74	\$128,962.99	\$ 159,597.37	\$ 162,154.77	\$ 149,221.72	\$173,976.28	\$ 166,571.15	\$ 131,635.84	\$139,721.87	\$171,850.75	\$ 155,983.50	\$ 155,724.27	\$ 1,813,762.25
Hickory Meadows	\$ 27,521.03	\$ 19,802.84	\$ 26,208.74	\$ 24,713.06	\$ 34,503.32	\$ 50,488.94	\$ 27,292.89	\$ 30,661.10	\$ 35,120.72	\$ 36,699.60	\$ 26,892.65	\$ 25,527.92	\$ 365,432.81
Jeff Waldvogel Trkg.	\$ 24,968.84	\$ 33,040.15	\$ 34,780.25	\$ 36,016.73	\$ 41,377.45	\$ 46,962.54	\$ 48,136.60	\$ 49,779.37	\$ 45,571.70	\$ 46,858.32	\$ 41,035.22	\$ 40,401.08	\$ 488,928.25
Moovin Materials	\$ -	\$ -	\$ -	\$ 6,331.87	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,331.87
Waldvogel Trucking	\$ 1,883.47	\$ 2,670.05	\$ 3,031.98	\$ 2,670.27	\$ 2,286.58	\$ 2,081.96	\$ 2,133.64	\$ 2,248.62	\$ 2,067.80	\$ 2,189.49	\$ 1,821.43	\$ 2,052.69	\$ 27,137.98
2017 Total	\$ 172,735.08	\$184,476.03	\$ 223,618.34	\$ 231,886.70	\$ 227,389.07	\$ 273,509.72	\$ 244,134.28	\$ 214,324.93	\$222,482.09	\$257,598.16	\$ 225,732.80	\$ 223,705.96	\$ 2,701,593.16
2016 Total	\$172,642.52	\$174,844.28	\$214,615.28	\$194,073.19	\$147,993.22	\$166,671.53	\$177,531.77	\$179,398.93	\$213,707.36	\$178,214.32	\$184,882.22	\$ 156,865.52	\$ 2,161,440.14

*Moovin Materials new hauler in April 2017

Date: January 17, 2018
Copies: K. Rindt (via email)
C. Shaw (via email)
B. Kreski
Utilities Committee

Appleton Water Treatment Plant Operations Synopsis October, November, December 2017

Summary

The table below presents selected water production and quality performance metrics for the current and previous reporting periods. All compliance parameters met or exceeded regulatory requirements. During the quarter, average water production decreased by about 11% and average lake turbidity increased by 24% consistent with seasonal change. As expected, the average ratio of electrical energy consumption to production volume has plateaued following transition to conventional filtration and UV disinfection.

WATER PLANT PARAMETERS	Previous (Q3 2017)			Current (Q4 2017)		
	July	August	September	October	November	December
Water Treated						
Finished (million gallons)	303.9	310.4	282.6	274.7	259.1	266.7
Finished (million gallons / day)	9.8	10.0	9.4	8.9	8.6	6.2
Electrical Energy (WTF)						
Consumption (Megawatt-hours)	517.7	509.8	475.2	467.5	437.7	460.5
MWH / million gallons produced	1.70	1.64	1.68	1.70	1.69	1.73
Turbidity						
Lake (NTU)	17.1	31.1	27.5	42.3	26.7	24.7
Finished (NTU)	0.02	0.03	0.02	0.02	0.02	0.02
Finished (<0.15 NTU standard)	100%	100%	100%	100%	100%	100%
Water System Microbial Quality						
Total Coliform Samples	81	81	82	81	81	81
Compliance with Standard	100%	100%	100%	100%	100%	100%
Disinfectant Contact Time						
Minimum CT Ratio Provided	5.7	5.7	4.9	2.4	1.2	1.3
Hardness						
Lake Total / Calcium (mg/L)	178/93	163/80	166/79	171/89	184/104	191/106
Finished Total / Calcium (mg/L)	84/20	78/18	82/19	82/19	93/24	97/30
Finished Water Quality						
Total Chlorine (mg/L)	1.76	1.83	1.88	1.95	1.91	1.77
pH (SU) Min/Max	8.2/8.9	8.1/8.8	8.3/8.8	8.3/8.9	8.7/8.9	8.5/8.9
Water Temperature (Degrees F)	75.9	73.6	69.8	59.9	39.9	34.0
Fluoride (mg/L)	0.72	0.72	0.68	0.67	0.67	0.67
Orthophosphate (mg/L)	0.82	0.80	0.68	0.61	0.63	0.61

Laboratory

- In support of plant operations, staff conducted analyses according to method protocols for pH, turbidity, alkalinity, hardness, free/total chlorine, ammonia, phosphorus, and fluoride.
- In support of distribution operations, staff performed required 81 monthly Coliform bacteria analyses along with heterotrophic plate count (HPC) testing.
- Staff collected and processed raw and finished water samples to comply with LT2, DBPR2, HAB sampling requirements. Support was provided to consecutive customers with shipping of DBPR2 samples.

- Preparations were made for upcoming Unregulated Contaminant Monitoring Requirements slated for 2018.

Safety

- WTF Safety programs were maintained by completing scheduled safety inspections and monthly meetings. There were no significant incidents to report.

Operations

- #5 Lake Pump lower bearing was replaced.
- Treatment plant electrical substations were cleaned and inspected.
- North reservoir re-coating project has been completed and returned to service.
- #4 Softener was cleaned and the coating warranty inspection was conducted.
- Two UV Disinfection reactors were in continuous service during the quarter.
- “Bank 2” lamps for all four UV reactors (8 lamps total) were replaced as the 7,000-hour operating threshold had been exceeded.
- Chemical systems design and rehabilitation project continues.
- Database development continues for the implementation of the new plant data management and reporting system (Hach WIMS).

RUPIP

- Merrick Systems continued lime system warranty work to resolve level transmitter and other related issues.
- CFE Wet Well interstitial space leakage was discussed with the Engineer and contractor with dewatering, inspection, and any necessary repairs scheduled for January.

Staffing & Training

- All staff have completed mandatory department and City safety and employee training for the year.
- Performance evaluations were completed for all staff. All staff scores were “consistent” or “exceptional” in each of their goal or competency categories. The continued success and cost-effectiveness of the Appleton Water Treatment Facility can be directly attributed to the professionalism, dedication, and performance of the staff.

WATER SUMMARY FOR NOVEMBER 2017

Work done by Construction Maintenance				
	Nov 16	Nov 17	YTD 16	YTD 17
Hydrants repaired	4	5	38	58
Hydrants replaced	0	0	4	5
Hydrant leaks	0	2	1	2
Valves replaced	0	0	1	4
Valves tested & inspected	0	54	1407	2021
Valves Rebuilt	5	11	23	41
Valve boxes repaired	4	3	53	51
Curb boxes repaired	4	18	149	212
Curb boxes replaced	0	4	21	6
Lead or galvanized replaced	0	0	19	33
New services 1"	0	0	0	0
New services >1"	0	0	1	0
Water main breaks	13	11	77	69
Joint leaks repaired	0	0	0	1
Water quality	1	0	6	10
Service leaks (City side)	0	0	1	3
Work done by Meter Service Team				
	Nov 16	Nov 17	YTD 16	YTD 17
New accounts set with 3/4" or 1"	6	3	146	60
New accounts set with larger meter	0	1	2	9
Meters tested	632	530	8697	5796
Meters failed	15	19	419	173
Meters stalled	0	0	0	3
Service calls	120	114	1276	1290
Final readings	345	328	3618	3576
Read meters - no reading	0	0	5	0
New meters installed	611	440	9047	5945
Exception meters inspected	0	0	0	0
Exception meters removed	0	0	0	0
Service leaks found	1	6	29	30
Cross connection inspections	573	436	8422	5733

**WATER MAIN BREAK/Joint LEAK REPORT NOVEMBER
2017**

LOCATION	Work Order	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	ESTIMATED DOLLAR VALUE OF WATER REVENUE LOSS**
Longview Drive/ Meade Street	233118	CIP	8"	1961	1/16" crack	7 days	2,552,703	\$15,527.81
2515 S. Telulah Avenue	233147	CIP	8"	1964	1/8" crack	8 hours	243,115	\$1,478.84
1101 E. Florida Avenue	233186	CIP	8"	1969	1/16" crack	4 hours	60,779	\$369.71
937 E. Glendale Avenue	233453	CIP	8"	Unknown	12" split	1 day	111,059	\$675.56
1173 N. Fernmeadow Drive	233607	DIP	8"	1973	5" hole	4 hours	1,033,038	\$6,283.85
300 Blk W. Spring Street	233689	CIP	6"	Unknown	1/16" crack	5 hours	56,980	\$346.60
3547 N. Windward Lane	233813	DIP	8"	1980	1/2" hole	6 days	334,227	\$2,033.07
124 E. Franklin Street	233814	CIP	6"	1912	1/16" crack & 8" split	324 days	2,066,166	\$12,568.26

**Water loss is calculated at the residential rate of \$4.55 per 100 cubic feet.

**WATER MAIN BREAK/Joint LEAK REPORT NOVEMBER
2017**

LOCATION	Work Order	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	ESTIMATED DOLLAR VALUE OF WATER REVENUE LOSS**
3008 E. Bona Avenue	233842	DIP	8"	1978	6" hole	325 days	3,859,707	\$23,478.16
1007 S. Matthias Street	233859	CIP	8"	1978	1/16" crack	4 hours	63,163	\$384.21
First Avenue/ Meade Street	234016	CIP	8"	1965	1/16" crack	120 days	43,760,640	\$266,191.06
								\$0.00
								\$0.00
								\$0.00
								\$0.00
								\$0.00
								\$0.00
								\$0.00

**Water loss is calculated at the residential rate of \$4.55 per 100 cubic feet.

WATER MAIN BREAK/Joint LEAK DATA LOG NOVEMBER 2017

Leak Location	Arterial, Collector, Freeway, Local	Type of Street Concrete/Asphalt	Major Break Minor Break	Catch Basin Draining Yes/No	Date/Time	Comments
Longview Drive/ Meade Street	Local	Concrete	Minor	Yes 5' away	11/2/2017 11:00 p.m. Thursday	Repaired right away due to service outage and property damage.
2515 S. Telulah Avenue	Collector	Concrete	Major	Yes 150' away	11/5/2017 12:00 a.m. Sunday	Repaired right away to prevent water loss and property damage.
1101 E. Florida Avenue	Local	Concrete	Major	Yes 25' away	11/6/2017 5:00 a.m. Monday	Repaired right away to prevent water loss and property damage.
937 E. Glendale Avenue	Collector	Asphalt	Minor	Yes 150' away	11/10/2017 3:00 p.m. Friday	Repaired right away. Ice building up along curb.
1173 N. Fernmeadow Drive	Local	Concrete	Major	Yes 150' away	11/14/2017 9:30 p.m. Tuesday	Repaired right away to prevent water loss and property damage.
300 Blk W. Spring Street	Local	Asphalt	Major	Yes 50' away	11/16/2017 8:00 a.m. Thursday	Repaired during normal work hours.

WATER MAIN BREAK/JOINT LEAK DATA LOG NOVEMBER 2017

Leak Location	Arterial, Collector, Freeway, Local	Type of Street Concrete/Asphalt	Major Break Minor Break	Catch Basin Draining Yes/No	Date/Time	Comments
3547 N. Windward Lane	Local	Concrete	Minor	No	11/21/2017 7:00 a.m. Tuesday	Repaired during normal work hours.
124 E. Franklin Street	Collector	Concrete	Minor	Yes 50' away	11/21/2017 8:00 a.m. Tuesday	Repaired during normal work hours. Running for a long time but had not surfaced until now. Water loss calculated back to January 1st.
3008 E. Bona Avenue	Local	Concrete	Major	Yes 100' away	11/22/2017 12:00 a.m. Wednesday	Repaired right away to prevent water loss and property damage. Break running for a long time. Water loss calculated back to January 1st.
1007 S. Matthias Street	Collector	Concrete	Minor	Yes 60' away	11/22/2017 6:00 a.m. Wednesday	Repaired during normal work hours.
First Avenue/ Meade Street	Local	Concrete	Major	Yes 20' away	11/29/2017 6:30 a.m. Wednesday	Repaired during normal work hours. Leak was found while testing hydrants. Evidence showed it had been leaking for a while. Water was running into sewer and not coming to surface. Hydrant was last tested four to six months ago and there was no leak at that time.

WATER SUMMARY FOR DECEMBER 2017

Work done by Construction Maintenance				
	<u>Dec 16</u>	<u>Dec 17</u>	<u>YTD 16</u>	<u>YTD 17</u>
Hydrants repaired	2	1	40	59
Hydrants replaced	0	0	4	5
Hydrant leaks	0	0	1	2
Valves replaced	0	0	1	4
Valves tested & inspected	99	123	1506	2144
Valves Rebuilt	3	12	26	53
Valve boxes repaired	1	5	54	56
Curb boxes repaired	5	14	154	226
Curb boxes replaced	2	0	23	6
Lead or galvanized replaced	0	0	19	33
New services 1"	2	0	2	0
New services >1"	0	0	1	0
Water main breaks	15	22	92	91
Joint leaks repaired	0	0	0	1
Water quality	1	0	7	10
Service leaks (City side)	1	0	2	3
Work done by Meter Service Team				
	<u>Dec 16</u>	<u>Dec 17</u>	<u>YTD 16</u>	<u>YTD 17</u>
New accounts set with 3/4" or 1"	18	8	164	68
New accounts set with larger meter	0	0	2	9
Meters tested	569	83	9266	5879
Meters failed	17	6	436	179
Meters stalled	0	0	0	3
Service calls	132	99	1408	1389
Final readings	209	282	3827	3858
Read meters - no reading	0	0	5	0
New meters installed	526	153	9573	6098
Exception meters inspected	0	0	0	0
Exception meters removed	0	0	0	0
Service leaks found	3	4	32	34
Cross connection inspections	555	132	8977	5865

**WATER MAIN BREAK/JOINT LEAK REPORT DECEMBER
2017**

LOCATION	Work Order	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	ESTIMATED DOLLAR VALUE OF WATER REVENUE LOSS**
1025 W. Roberts Avenue	234088	CIP	8"	1966	1/8" crack	4 hours	101,702	\$618.64
Newberry Street/ Kensington Drive	234096	CIP	12"	1967	5/32" crack	6 hours	341,880	\$2,079.62
2535 S. Walden Avenue	234097	CIP	8"	1964	1/16" crack	4 hours	60,779	\$369.71
227 E. Greenfield Street	234254	CIP	6"	Unknown	1/16" crack	4 hours	45,584	\$277.28
Capitol Drive/ Rankin Street	234301	DIP	12"	1967	3" hole	4 hours	334,227	\$2,033.07
Schaefer Street/ Gloria Court	234302	DIP	12"	1979	3" hole	4 hours	364,672	\$2,218.26
919 E. Marquette Street	234490	CIP	6"	1953	1/8" crack	6 hours	136,752	\$831.85
Meade Street/ Evergreen Drive	234491	DIP	12"	1975	4" hole	6 hours	1,065,275	\$6,479.95

**Water loss is calculated at the residential rate of \$4.55 per 100 cubic feet.

WATER MAIN BREAK/Joint LEAK REPORT DECEMBER

2017

LOCATION	Work Order	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	ESTIMATED DOLLAR VALUE OF WATER REVENUE LOSS**
2108 E. Emmers Drive	234600	CIP	8"	1965	1/8" crack	4 hours	123,965	\$754.07
1812 N. Birchwood Avenue	234637	CIP	8"	1961	3" hole	4 hours	364,672	\$2,218.26
1812 N. Birchwood Avenue	234637	CIP	8"	1961	1/16" crack	8 hours	121,557	\$739.42
2801 W. Second Street	234832	CIP	8"	1968	1/4" crack	8 hours	486,229	\$2,957.68
517 N. Canterbury Drive	235014	CIP	8"	1967	1/4" crack	4 hours	243,115	\$1,478.84
334 E. Randall Street	235045	CIP	6"	1920	1/8" crack	4 hours	91,168	\$554.56
620 W. Fifth Street	235054	CIP	12"	1963	1/16" crack	4 hours	87,445	\$531.92
1700 Blk. W. Eighth Street	235056	CIP	6"	1945	1/32" crack	5 hours	56,980	\$346.60
619 E. Greenfield Street	235057	CIP	8"	1961	1/8" crack	4 hours	108,724	\$661.36
801 W. Parkway Boulevard	235079	CIP	8"	1954	1/16" crack	3 hours	45,584	\$277.28

**Water loss is calculated at the residential rate of \$4.55 per 100 cubic feet.

WATER MAIN BREAK/Joint LEAK REPORT DECEMBER

2017

LOCATION	Work Order	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	ESTIMATED DOLLAR VALUE OF WATER REVENUE LOSS**
1619 E. Calumet Street	235130	CIP	12"	1965	3/16" crack	13 hours	888,888	\$5,407.01
717 N. Bay Ridge Road	235141	CIP	8"	1969	1/8" crack	4 hours	121,557	\$739.42
1609 S. Orchard Drive	235165	CIP	6"	1958	1/32" crack	21 hours	107,025	\$651.02
Carpenter Street/ Dennison Street	235264	CIP	6"	1946	1/32" crack	12 hours	61,157	\$372.01
								\$0.00
								\$0.00
								\$0.00
								\$0.00
								\$0.00
								\$0.00

**Water loss is calculated at the residential rate of \$4.55 per 100 cubic feet.

**WATER MAIN BREAK/JOINT LEAK DATA LOG DECEMBER
2017**

Leak Location	Arterial, Collector, Freeway, Local	Type of Street Concrete/Asphalt	Major Break Minor Break	Catch Basin Draining Yes/No	Date/Time	Comments
1025 W. Roberts Avenue	Local	Asphalt	Minor	Yes 200' away	12/1/2017 10:00 a.m. Friday	Repaired during normal work hours.
Newberry Street/ Kensington Drive	Collector	Asphalt	Major	Yes 200' away	12/2/2017 10:00 p.m. Saturday	Repaired right away to prevent water loss and property damage.
2535 S. Walden Avenue	Local	Concrete	Major	Yes 100' away	12/3/2017 7:00 a.m. Sunday	Repaired right away to prevent water loss and property damage.
227 E. Greenfield Street	Local	Concrete	Major	Yes 100' away	12/4/2017 9:00 p.m. Monday	Repaired right away to prevent water loss and property damage.
Capitol Drive/ Rankin Street	Collector	Concrete	Major	Yes 300' away	12/6/2017 9:00 a.m. Wednesday	Repaired during normal work hours.
Schaefer Street/ Gloria Court	Collector	Concrete	Major	Yes 200' away	12/6/2017 11:00 a.m. Wednesday	Repaired during normal work hours.

**WATER MAIN BREAK/JOINT LEAK DATA LOG DECEMBER
2017**

Leak Location	Arterial, Collector, Freeway, Local	Type of Street Concrete/Asphalt	Major Break Minor Break	Catch Basin Draining Yes/No	Date/Time	Comments
919 E. Marquette Street	Local	Asphalt	Major	Yes 50' away	12/9/2017 8:00 a.m. Saturday	Repaired right away because it was creating icy road conditions and to prevent further water loss.
Meade Street/ Evergreen Drive	Arterial	Concrete	Major	Yes 50' away	12/9/2017 9:00 a.m. Saturday	Repaired right away. There was a lot of water creating a muddy mess.
2108 E. Emmers Drive	Local	Concrete	Major	Yes 150' away	12/12/2017 5:00 a.m. Tuesday	Repaired during normal work hours.
1812 N. Birchwood Avenue	Local	Concrete	Major	Yes 75' away	12/12/2017 4:00 p.m. Tuesday	Repaired right away. This was the first of two breaks within the same hole at different times.
1812 N. Birchwood Avenue	Local	Concrete	Major	Yes 75' away	12/12/2017 10:00 p.m. Tuesday	Repaired right away. This was the second of two breaks in the same hole. A new crew had to be called in because the first group was at the limit for hours.
2801 W. Second Street	Local	Concrete	Major	Yes 25' away	12/16/2017 8:00 a.m. Saturday	Repaired right away to prevent water loss and property damage.

**WATER MAIN BREAK/JOINT LEAK DATA LOG DECEMBER
2017**

Leak Location	Arterial, Collector, Freeway, Local	Type of Street Concrete/Asphalt	Major Break Minor Break	Catch Basin Draining Yes/No	Date/Time	Comments
517 N. Canterbury Drive	Local	Concrete	Minor	Yes 100' away	12/20/2017 9:00 a.m. Wednesday	Repaired during normal work hours.
334 E. Randall Street	Collector	Concrete	Minor	Yes 50' away	12/21/2017 9:00 a.m. Thursday	Repaired during normal work hours.
620 W. Fifth Street	Local	Terrace	Major	Yes 100' away	12/23/2017 12:00 a.m. Saturday	Repaired right away to prevent water loss and property damage.
1700 Blk W. Eighth Street	Local	Concrete	Major	Yes 125' away	12/24/2017 5:00 a.m. Sunday	Repaired right away to prevent water loss and property damage.
619 E. Greenfield Street	Local	Concrete	Major	Yes 25' away	12/25/2017 10:00 a.m. Monday	Repaired right away due to property damage.
801 W. Parkway Boulevard	Local	Asphalt	Major	Yes 50' away	12/26/2017 8:00 a.m. Tuesday	Repaired during normal work hours.

**WATER MAIN BREAK/JOINT LEAK DATA LOG DECEMBER
2017**

Leak Location	Arterial, Collector, Freeway, Local	Type of Street Concrete/Asphalt	Major Break Minor Break	Catch Basin Draining Yes/No	Date/Time	Comments
1619 E. Calumet Street	Arterial	Concrete	Major	Yes 200' away	12/26/2017 7:00 p.m. Tuesday	Repaired right away. Water was not coming to the surface and was running into the underground sewer. Water was coming up into a resident's basement.
717 N. Bay Ridge Road	Local	Concrete	Major	Yes 50' away	12/27/2017 7:00 a.m. Wednesday	Repaired during normal work hours.
1609 S. Orchard Drive	Local	Concrete	Minor	Yes 10' away	12/27/2017 12:00 p.m. Wednesday	This break was identified after hours due to ice build up. Let run until the next morning and repaired during normal work hours.
Carpenter Street/ Dennison Street	Collector	Asphalt	Minor	Yes 20' away	12/29/2017 12:00 p.m. Friday	Repaired right away to prevent water loss and property damage.