



# 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, February 11, 2020

5:00 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

[20-0106](#) Approval of the January 14, 2020 Utilities Committee Meeting Minutes.

Attachments: [January 14, 2020 Utilities Committee Meeting Minutes.pdf](#)

4. **Public Hearings/Apearances**

5. **Action Items**

[20-0175](#) Approve second amendment to the 2019J Stormwater Consulting Services Contract for Phase 1 Final Design and Construction documents and Construction Related Services (CRS) for Spartan Drive with Brown and Caldwell (BC) in an amount not to exceed \$10,548.

Attachments: [2019J Spartan BC Second Amendment Memo.pdf](#)

6. **Information Items**

[20-0174](#) Change order No. 1 for Unit AA-19, Bear Creek Culvert & Spartan / Sommers Retaining Wall.

Attachments: [AA-19 Change Order One.pdf](#)

[20-0176](#) Change Order #3 to Classic Coatings Company contract as part of the Lindbergh Standpipe Recoat Project totaling \$7,600 resulting in a decrease in contract cost from \$693,850 to \$687,795.

Attachments: [Change Order 3 Lindbergh Recoat Project.pdf](#)

[20-0107](#)

Monthly Reports for October, November, and December 2019

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

**Attachments:** [2019 Q4 Wastewater Synopsis.pdf](#)

[2019 Q4 Water Synopsis.pdf](#)

[Water Main Breaks December 2019.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.*



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## Meeting Minutes - Final Utilities Committee

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Tuesday, January 14, 2020

5:00 PM

Council Chambers, 6th Floor

---

1. Call meeting to order

*Chairperson Meltzer called the Utilities Committee Meeting to order at 5:00 p.m.*

2. Roll call of membership

**Present:** 5 - Meltzer, Reed, Firkus, Fenton and Otis

3. Approval of minutes from previous meeting

[20-0018](#)

Approval of the December 10, 2019 Utilities Committee Meeting Minutes.

**Attachments:** [December 10, 2019 Utilities Committee Meeting Minutes.pdf](#)

**Reed moved, seconded by Firkus, that the Minutes be approved. Roll Call.**

**Motion carried by the following vote:**

**Aye:** 5 - Meltzer, Reed, Firkus, Fenton and Otis

4. Public Hearings/Appearances

5. Action Items

[19-1547](#)

Request to classify 7500 N. Purdy Parkway (parcel 31-1-9221-00) as commercial for stormwater billing purposes.

**Attachments:** [Memo 311922100.pdf](#)  
[2019-10-22 MEU Holdings - Letter to Sue Olson.pdf](#)

*This item will be held until a future Utilities Committee Meeting.*

**Reed moved, seconded by Fenton, that the Report Action Item be held until a future Utilities Committee Meeting. Roll Call. Motion carried by the following vote:**

**Aye:** 5 - Meltzer, Reed, Firkus, Fenton and Otis

[20-0019](#)

Approve update to Municipal Code Section 24-10, Erosion and Sediment Control Applicability and Jurisdiction.

**Attachments:**     [2019 24-10 ESC Update Util Memo.pdf](#)  
                              [Sec 24-10 Changes.pdf](#)

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

**Aye:** 5 - Meltzer, Reed, Firkus, Fenton and Otis

[20-0020](#)

Approve updates to Municipal Code Section 24-35, Erosion and Sediment Control Plan, Statement and Amendments.

**Attachments:**     [2019 24-35 ESC Update Util Memo.pdf](#)  
                              [Sec 24-35 Changes.pdf](#)

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

**Aye:** 5 - Meltzer, Reed, Firkus, Fenton and Otis

[20-0021](#)

CRITICAL TIMING - Approve contract with the Wisconsin Department of Natural Resources for the UNPS Planning Grant for the update to the City-wide Stormwater Management Plan in the amount of \$75,000.

**Attachments:**     [2019 Planning grant DNR contract to UC.pdf](#)

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

**Aye:** 5 - Meltzer, Reed, Firkus, Fenton and Otis

[20-0022](#)

Award 2020D Stormwater Consulting Services Contract for the City-wide Stormwater Management Plan Update to Brown and Caldwell in an amount not to exceed \$199,981.

**Attachments:**     [2020D City-wide SWMP BC Award Memo.pdf](#)

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

**Aye:** 5 - Meltzer, Reed, Firkus, Fenton and Otis

[20-0023](#)

Award Contract to Fiberglass Solutions Inc. for Hypochlorite Fiberglass Reinforced Plastic Tank Relining Work in the amount of \$42,794 plus a 7.5% contingency of \$3,210 for a total not to exceed cost of \$46,004.

**Attachments:**     [200106 Utilities Memo Fiberglass Tank Relining Contract.pdf](#)

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

**Aye:** 5 - Meltzer, Reed, Firkus, Fenton and Otis

## 6. Information Items

[20-0024](#)

Discuss Stormwater Permit requirements for Erosion and Sediment Control.

**Attachments:**    [2020 ESC draft Program Update w attachments.pdf](#)  
[Jan 2020 ESC Program.pdf](#)

*This item was presented.*

[20-0025](#)

Monthly Reports for November 2019:  
- Water Distribution and Meter Team Monthly Report

**Attachments:**    [Water Main Breaks November 2019.pdf](#)

*This item was presented.*

## 7. Adjournment

Reed moved, seconded by Firkus, that the Utilities Committee Meeting be adjourned at 5:25 p.m. Roll Call. Motion carried by the following vote:

**Aye:** 5 - Meltzer, Reed, Firkus, Fenton and Otis

## Department of Public Works – Engineering Division

### MEMO

**TO:** Utilities Committee

**FROM:** Paula Vandehey, Director of Public Works  
Sue Olson, Staff Engineer  
Pete Neuberger, Staff Engineer

**DATE:** February 5, 2020

**RE:** Approve second amendment to the 2019J stormwater consulting services contract for Phase 1 Final Design and Construction documents and Construction Related Services (CRS) for Spartan Drive with Brown and Caldwell (BC) in an amount not to exceed \$10,548.

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The Department of Public Works is requesting approval for the second amendment to the 2019J stormwater consulting services contract for Phase 1 Final Design and Construction Documents and 2019 Construction Related Services (CRS) for Spartan Drive with Brown and Caldwell (BC) in an amount not to exceed \$10,548. If the amendment is approved, the total contract amount will be \$193,828.

Construction on the Spartan Drive area started in early September, with Unit Z-19 Sewer and Water Construction on Spartan Drive, Sommers Drive, and Haymeadow Avenue. City staff designed this bid package and are performing construction inspection. Work on this contract is almost complete.

The second bid package for work in this area is Unit AA-19 Bear Creek Culvert and Spartan/Sommers Retaining Wall. The Contractor began work on this project in December 2019. BC, with OMNNI Associates as a sub-consultant, are performing Construction Related Services for this contract under the 2019J contract.

The foundation for the retaining wall at the intersection of Spartan Drive and Sommers Drive was constructed in the second half of December. When crews returned in early January to form the walls, they noticed that some of the reinforcing steel had been incorrectly installed. They notified the City and BC of the situation.

BC expedited the redesign of the retaining wall to meet strength requirements and regulatory permits for restrictions on wetland impacts, and keep construction moving forward. This was clearly not anticipated in the Construction Related Services portion of the contract.

The 2019J contract with BC also includes final design, bid documents and bidding assistance for Unit H-20, the grade and gravel and stormwater ponds in the Phase 1 Spartan Drive area. This

work will be complete within the next few weeks and a separate contract for 2020 Construction Related Services for Unit H-20 will be brought to committee in the near future.

Based on the continued quality of work by BC, the Department of Public Works is requesting approval for the second amendment to the 2019J stormwater consulting services contract for Phase 1 Final Design and Construction Documents and 2019 Construction Related Services (CRS) for Spartan Drive with Brown and Caldwell (BC) in an amount not to exceed \$10,548.

**CONTRACT CHANGE ORDER**Change Order No. 1Date 02/05/20Contract No. 110-19 for the following public work : Unit AA-19 Bear Creek Culver and Spartan/Sommers Retaining Wallbetween Highland Landscapers , 1900 Bohm Drive, Little Chute, WI 54140  
(Contractor Name) (Contractor Address)and the City of Appleton dated: 18-Sep-19 is hereby changed in the following particular wit:

Item No.	Account No.	Current Contract Amount	Current Contingency	C.O. Amount (+/-)	Contingency (+/-)	New Contract Total	New Contingency Total
1	5230.6809	\$581,163.00	\$58,116.00		-\$10,548.00	\$581,163.00	\$47,568.00
2						\$0.00	\$0.00
3						\$0.00	\$0.00
4						\$0.00	\$0.00
5						\$0.00	\$0.00
6						\$0.00	\$0.00
7						\$0.00	\$0.00
8						\$0.00	\$0.00
9						\$0.00	\$0.00
10						\$0.00	\$0.00
Total		\$581,163.00	\$58,116.00	\$0.00	-\$10,548.00	\$581,163.00	\$47,568.00

Reason for Change: Move funds to 2019J Brown and Caldwell contract to redesign retaining wall due to construction error  
  
  
The Contract Time will be (increased / decreased / unchanged) by this Change Order: NA DaysThe Date of Completion as of the date of this Change Order therefore is: June 15, 2020Finance Committee Agenda Date: Date approved by Council:





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

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Water Treatment Facility  
2281 Manitowoc Rd.  
Menasha, WI 54952  
920-997-4200 tel.  
920-997-3240 fax

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

**From:** Chris Shaw, Utilities Director

**cc:** Kelli Rindt, Enterprise Fund Accounting Manager

**Date:** January 28, 2020

**Re:** **Informational Item: *Change Order #3 to Classic Coatings Company contract as part of the Lindbergh Standpipe Recoat Project totaling \$(7,600) resulting in a decrease in contract cost from \$693,850 to \$687,795***

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The Common Council approved a contract for the Lindbergh Standpipe to be media blasted and recoated. Other project elements included storm sewer and electrical upgrades. The project was awarded to Classic Coatings at a contract cost of \$693,850. Prior change orders have resulted in an increase of \$1,545. Change Order #3 will result in deducts totaling \$7,600. These deducts were for allowances to metal repair and site restoration. There is also a cost to defer engineering oversight costs from the City and onto the contractor. This was the result of an extension to the project engineer's work to ensure project specifications were adhered to.

Project substantial completion will be reached on January 31, 2020. Project final completion will occur on February 29, 2020.

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

**Appleton Wastewater Treatment Plant  
Operations Synopsis  
October 2019 – December 2019**

**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 eight and one half days. Dewatering processes functioned well and converted 17.8 Million Gallons (MG) of primary digested sludge to biosolids.

**Summary of Treatment**

<b>Parameter</b>	<b>October</b>	<b>November</b>	<b>December</b>	<b>Average</b>
Industrial Flow (MG)	36.0	42.4	38.0	38.8
Domestic Flow (MG)	454.9	375.0	413.4	414.4
Total Flow (MG)	490.9	417.4	451.4	453.2
Influent CBOD Load (Avg Daily lbs)	29,424	24,164	24,672	26,087
Influent TSS Load (Avg Daily lbs)	41,799	40,646	44,536	42,327
Influent Phosphorous Load (Avg Daily lbs)	448	438	445	444
Influent Ammonia Load (Avg Daily lbs)	1,974	1,843	2,071	1,963
Effluent CBOD Load (Avg Daily lbs)	580	511	748	613
Effluent TSS Load (Avg Daily lbs)	409	333	411	384
Effluent Phosphorous Load (Avg Daily lbs)	20	15	17	17
Effluent Ammonia Load (Avg Daily lbs)	259	344	420	341
% Treatment Removal of CBOD	98.0	97.9	97.0	97.6
% Treatment Removal of TSS	99.0	99.2	99.1	99.1
% Treatment Removal of Phosphorous	95.5	96.6	96.2	96.1
% Treatment Removal of Ammonia	86.9	81.3	79.7	82.6

**Work in Progress:**

- **2017 Appleton Wastewater Plant Improvement Projects:** (WAS Pumping System Replacement, High Pressure Blower #3 Replacement, Digester Biogas Mix Compressor Glycol Cooling System): The construction notice to proceed was authorized on March 4, 2019. Construction activities remained ongoing through the reporting period. Project completion is anticipated in May 2020.
- **B-Building Biogas Boiler Project:** Work proceeded through the reporting period associated with the new high efficiency biogas (methane) boiler which will support the lower heating loop at the AWWTP. Work also included additional improvements that will complement both the new biogas boiler and existing biogas boilers (e.g. new biogas conveyance piping, gas mixing, gas compression system, and automated fuel controls). These aforementioned improvements are designed to optimize the use of two existing upper loop boilers in conjunction with the new lower loop boilers that will be fueled entirely on biogas from the anaerobic digesters. New equipment startup occurred in October, with the system currently operating.
- **Compost Site Evaluation:** Work remains in progress on final draft report by Coker Composting and Consulting (Coker).

- **2019 Midway Road Lift Station Phase II Improvements Project:** McMahon is under an engineering services contract to provide design, bidding and construction phase services as part of the second phase of the Midway Lift Station Improvements project. The project includes replacement of the existing pumps, deteriorated pump rails, and electrical control panel (nearly 30 years old). Construction activities began in November, with substantial completion in December.
- **2019 Appleton Wastewater Plant Improvement Projects:** McMahon was awarded the professional engineering service contract in May as part of the multi-process improvements project. The project includes replacement of the Return Activated Sludge (RAS) pumps, process piping modifications (e.g. blended sludge, waste gas, and filtrate), primary clarifier concrete recoating, and outside secondary containment repairs for iron salt chemical offloading. McMahon continued preliminary engineering phase efforts during the reporting period.

### **Regulatory Summary**

- Monthly Discharge Monitoring reports for October, November, and December were filed electronically on time for regulatory compliance.

### **Laboratory**

- All sampling and laboratory testing procedures were performed in accordance with requirements outlined in the AWWTP Wisconsin Pollutant Discharge Elimination System (WPDES) permit including those associated with the Health Department pool testing program.
- Successful Analysis of Single Blind Proficiency samples for laboratory recertification occurred during the reporting period.

### **Staffing & Training**

- The Master Electrician position was over-hired on 12/9/19 to facilitate training before the retirement of Master Electrician Rich Kohl on 1/2/2020.
- Two department retirements are planned for the first quarter of 2020. The hiring process is in progress for those positions, which include Instrumentation Technician and Solids Operator.

**EFFLUENT QUALITY SUMMARY**  
October 2018/2019 – December 2018/2019

**Table 1 – 2018 Monthly Permit Summary**

Month	CBOD (mg/L)	TSS (mg/L)	TSS (lbs/day)	P (mg/L)	P <sup>(3)</sup> (lbs/day)	NH <sub>3</sub> -N <sup>(1)</sup> (mg/L)	Fecal <sup>(2)</sup> Coliform Colonies/ (100 ml)	Chlorine <sup>(2)</sup> Residual (mg/L)	pH (s.u.)
<i>Permit Limit</i>	<i>25</i>	<i>30</i>	<i>1,322 <sup>(3)</sup></i>	<i>1</i>	<i>23 <sup>(3)</sup></i>	<i>10, 11, 4.4, 18</i>	<i>400 col/100ml Geo.Mean</i>	<i>0.038 mg/L daily</i>	<i>6.0 - 9.0 daily limit</i>
July 2018	5	5	354	0.61	41	0.77	11	<0.032	7.4/7.6
August 2018	6	4	375	0.64	51	1.40	56	<0.032	7.4/7.6
September 2018	6	4	940	0.56	71	1.49	10	<0.032	7.4/7.6
October 2018	5	4	510	0.26	32	0.89	NA	NA	7.4/7.6
November 2018	7	3	305	0.22	21	1.59	NA	NA	7.4/7.5
December 2018	5	4	673	0.30	28	3.25	NA	NA	6.2/7.5

**Table 2 – 2019 Monthly Permit Summary**

Month	CBOD (mg/L)	TSS (mg/L)	TSS (lbs/day)	P (mg/L)	P <sup>(3)</sup> (lbs/day)	NH <sub>3</sub> -N <sup>(1)</sup> (mg/L)	Fecal <sup>(2)</sup> Coliform Colonies/ (100 ml)	Chlorine <sup>(2)</sup> Residual (mg/L)	pH (s.u.)
July 2019	5	2	150	0.14	13	1.85	4	<0.032	6.8/7.1
August 2019	4	1	98	0.17	14	1.60	10	<0.032	6.8/7.2
September 2019	5	3	525	0.17	21	2.33	53	<0.032	7.1/7.3
October 2019	4	3	409	0.16	20	1.98	NA	NA	7.1/7.4
November 2019	5	3	333	0.13	15	2.91	NA	NA	7.2/7.4
December 2019	5	3	411	0.13	17	3.65	NA	NA	7.1/7.4

**NOTES:**

- 1) Seasonal NH<sub>3</sub>-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 30<sup>th</sup>. 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.

**YEAR 2019 RECEIVING STATION REVENUE**

Hauler	January	February	March	April	May	June	July	August	September	October	November	December	Y-T-D Total
A & B Leist Trucking	\$ 192,964.32	\$171,666.63	\$ 206,654.56	\$ 205,765.77	\$ 218,421.63	\$ 213,640.81	\$ 236,349.22	\$ 220,225.61	\$196,456.10	\$ 175,140.16	\$ 172,628.39	\$ 83,852.74	\$ 2,293,765.94
Burtles Custom Ag *											\$ 9,321.90	\$ 20,008.86	\$ 29,330.76
Dean Foods	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hickory Meadows	\$ 38,366.69	\$ 36,715.45	\$ 55,880.13	\$ 39,309.71	\$ 42,620.93	\$ 31,540.84	\$ 53,873.47	\$ 41,672.91	\$ 51,091.30	\$ 63,010.99	\$ 38,054.08	\$ 50,693.83	\$ 542,830.33
Holland Sanitary Dist 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Jeff Waldvogel Trkg.	\$ 37,371.58	\$ 30,251.53	\$ 36,648.35	\$ 53,986.57	\$ 64,742.30	\$ 64,710.94	\$ 62,729.49	\$ 64,386.37	\$ 58,137.82	\$ 52,165.32	\$ 34,584.78	\$ 32,043.04	\$ 591,758.09
Movin Materials	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Waldvogel Trucking	\$ 2,514.92	\$ 1,833.16	\$ 2,605.28	\$ 2,063.25	\$ 1,994.54	\$ 1,964.68	\$ 2,045.01	\$ 2,187.28	\$ 2,105.35	\$ 2,095.02	\$ 1,873.10	\$ 2,016.28	\$ 25,297.87
<b>2019 Total</b>	\$ 271,217.51	\$240,466.77	\$ 301,788.32	\$ 301,125.30	\$ 327,779.40	\$ 311,857.27	\$ 354,997.19	\$ 328,472.17	\$307,790.57	\$ 292,411.49	\$ 256,462.25	\$ 188,614.75	\$ 3,482,982.99
<b>2018 Total</b>	\$230,054.73	\$225,457.71	\$278,712.95	\$330,081.94	\$416,028.68	\$333,628.29	\$322,323.96	\$276,553.18	\$328,181.16	\$302,376.00	\$274,097.90	\$ 258,720.18	\$ 3,576,216.68

\*Burtles Custom Ag new customer in November 2019  
Holland Sanitary District 1 new customer in March 2018  
Dean Foods new customer in April 2018  
3% Rate Increase effective 1/1/18  
1% Rate Increase effective 1/1/19  
Effective 5/1/19 Dean Foods is billed with Jeff Waldvogel Trucking

Date: January 15, 2020  
Copies: K. Rindt (via email)  
C. Shaw (via email)  
B. Kreski  
Utilities Committee

**Appleton Water Treatment Plant  
Operations Synopsis  
October, November, and December 2019**

**Performance Summary**

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

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

Water Production. Compared with Q3 of 2019 (quarter over quarter or Q/Q), average water production decreased by 12% consistent with seasonal demand profile. Compared with Q4 of 2018 (year over year or Y/Y), average water production decreased slightly by about 1%.

Raw Water Quality. Q/Q average raw water turbidity decreased consistent with winter lake conditions. Y/Y average raw water turbidity for Q4 also declined likely due to early ice cover.

Energy Efficiency. In terms of applied electrical energy, Q/Q efficiency remained the same while Y/Y efficiency improved by nearly 2%.

WATER PLANT PARAMETERS	Previous (Q3 2019)			Current (Q4 2019)		
	July	August	September	October	November	December
<b>Water Treated</b>						
Finished (million gallons), total	310.9	302.4	272.8	263.0	252.5	261.6
Finished (million gallons / day), average	10.0	9.8	9.1	8.5	8.4	8.4
<b>Electrical Energy (WTF)</b>						
Consumption (Megawatt-hours)	555.7	494.7	440.8	435.3	433.0	464.3
MWH / million gallons produced	1.79	1.64	1.62	1.66	1.71	1.66
<b>Lake Turbidity (NTU), average</b>	14.7	26.8	25.7	25.4	11.5	6.5
<b>Water System Microbial Quality</b>						
Total Coliform Samples	81	81	81	80	81	81
Compliance with Standard	100%	100%	100%	100%	100%	100%
<b>Finished Water Quality</b>						
Water Temperature (Degrees F)	77.8	75.0	68.1	54.2	35.7	33.5
Turbidity (NTU), average	0.02	0.02	0.02	0.02	0.02	0.02
%<0.15 NTU standard	100	100	100	100	100	100
pH (SU), average	8.7	8.8	8.8	8.9	8.9	8.9
Total Chlorine (mg/L)	1.79	1.89	1.92	1.94	1.90	1.95
Fluoride (mg/L)	0.70	0.66	0.70	0.75	0.68	0.71
Orthophosphate (mg/L)	0.74	0.70	0.63	0.71	0.60	0.72

### **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.
- Staff collected and processed raw and finished water samples to comply with Disinfection By-Products Rule (DBPR) sampling requirements. Provided support to consecutive customers with shipping of DBPR2 samples.

### **Safety**

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

### **Operations**

- Completed robotic inspection and videography of the North Clearwell.
- Operated two UV Disinfection reactors continuously during the quarter.
- Continued design phase for the Lake Station mechanical/electrical rehabilitation.
- Re-coated the Lindbergh Standpipe interior, exterior, and appurtenances.
- Successfully tested data upload for the monthly operating report to WDNR.
- Submitted state mandated testing plan for Optimized Corrosion Control Treatment (OCCT) program for approval.
- Dewatered and cleaned Softeners #1 & 2.

### **Staffing & Training**

- All staff have completed City Safety as well as Utilities Department Safety training requirements for the year.

# WATER MAIN BREAK/JOINT LEAK REPORT DECEMBER 2019

## YEARLY WATER MAIN BREAK COMPARISON

<u>DEC 18</u>	<u>DEC 19</u>	<u>YTD 18</u>	<u>YTD 19</u>
13	15	86	100

LOCATION	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
Peter & Midpark	264249	CIP	8"	1961	1/4" Crack	6 Hrs	364,672	\$2,217.21
Prospect & Pierce	264329	CIP	8"	1930	1/8" Crack	3 Hrs	72,934	\$443.44
Morrison & McArthur	264362	CIP	8"	1957	1/8" Crack	12 Hrs	326,172	\$1,983.13
Midpark & Harp Alley	264548	CIP	8"	1968	1/8" Crack	2 Hrs	64,322	\$391.08
825 S. Summit St.	264643	CIP	6"	1927	1/16" Crack	2 Hrs	15,118	\$91.92
Marquette & Eugene	264766	CIP	8"	1964	1/16" Crack	6 Hrs	92,973	\$565.28
2017 N. Eugene St.	264765	CIP	8"	1968	1/16" Crack	5 Hrs	77,478	\$471.07
Greenfield & Meade	264790	CIP	6"	1961	1/64" Crack	45 Days	2,752,080	\$16,732.65

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



## WATER MAIN BREAK/JOINT LEAK REPORT DECEMBER 2019

LOCATION	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
2503 S. Harmon St.	264821	CIP	8"	1968	1/16" Crack	4 Hrs	54,362	\$330.52
309 N. Rankin St.	264822	CIP	6"		1/16"	4 Hrs	39,739	\$241.61
2417 E. Forest St.	264858	CIP	8"	1962	Two 1/16" Cracks	4 Hrs	111,410	\$677.37
Durkee & College	264857	CIP	6"	1946	5" Hole	3 Hrs	750,383	\$4,562.33
507 E. Roeland Ave.	264901	CIP	8"	1960	19" Split	5 Hrs	49,407	\$300.39
1143 W. Cedar St.	264859	CIP	6"	1937	1/16" Split	8 Hrs	64,465	\$391.95
Meade & Winnebago	264983	CIP	6"	1930	8"x1/16" Split	8 Hrs	31,907	\$193.99

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