



City of Appleton

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

Meeting Agenda - Final Utilities Committee

Tuesday, July 30, 2019

5:00 PM

Council Chambers, 6th Floor

Rescheduled from 7-23-19

1. Call meeting to order

2. Roll call of membership

3. Approval of minutes from previous meeting

[19-1090](#) Approval of the July 16, 2019 Utilities Committee Meeting Minutes.

Attachments: [July 16, 2019 Utilities Committee Meeting Minutes](#)

4. **Public Hearings/Apearances**

5. **Action Items**

[19-1091](#) Fourth Amendment to the 2018 Stormwater Management Plan Review contract with raSmith by an increase of \$15,000 for a total contract amount not to exceed \$132,500.

Attachments: [2018A SWM Plan Review Fourth Amendment Memo Util Cmte.pdf](#)

[19-1092](#) Approve clarification language to Sanitary Lateral Repair Policy.

Attachments: [Proposed clarification to Sanitary Lateral Repair Policy.pdf](#)

6. **Information Items**

[19-1096](#) PFAS Monitoring Request for Municipal Wastewater Treatment Facilities with Industrial Pretreatment Programs or Users expected to be PFAS Sources.

Attachments: [PFAS Monitoring Request.pdf](#)

[19-1093](#) Department of Utilities 2019 Mid-Year Performance Reviews

Attachments: [Utilities 2019 Mid-Year Performance Reviews.pdf](#)

[19-1094](#)

Department of Public Works 2019 Mid-Year Performance Reviews

Attachments: [DPW 2019 Mid-Year Performance Reviews.pdf](#)

[19-1095](#)

Monthly Reports for April, May, June 2019:

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

Attachments: [2019 Q2 AWWTP Synopsis and Receiving Station Revenue Report.pdf](#)
[2019 Q2 AWTF Synopsis.pdf](#)
[Watermain Break Report - June 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.



City of Appleton

100 North Appleton Street
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Meeting Minutes - Final Utilities Committee

Tuesday, July 16, 2019

5:00 PM

Council Chambers, 6th Floor

Rescheduled from 7-9-19

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: 3 - Meltzer, Reed and Firkus

3. Approval of minutes from previous meeting

[19-0997](#)

Approval of the June 11, 2019 Utilities Committee Meeting Minutes.

Attachments: [June 11, 2019 Utilities Committee Meeting Minutes](#)

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

Motion carried by the following vote:

Aye: 3 - Meltzer, Reed and Firkus

4. Public Hearings/Appealances

5. Action Items

19-1009

Request the Approval of the Electronic Compliance Maintenance Annual Report (eCMAR) for 2018 (attached) and Request the following Resolution be presented to the Common Council for approval:

Whereas, the City of Appleton has successfully been operating a biosolids compost program in cooperation with the Outagamie Department of Solid Waste; and

Whereas, Outagamie County has committed to continue to allowing biosolids composting during the next five years on over five acres of County property; and

Whereas, the City of Appleton had applied for and has now been re-issued a Wisconsin Pollution Discharge Elimination System (WPDES) permit; and

Whereas, the WPDES permit application requested and the facility was approved for a biosolids compost program and outfall; and

Whereas, the City of Appleton now meets requirements of NR 204 for biosolids storage due to the reissuance of the WPDES permit as of April 1, 2017;

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

Article 1. Continues supporting an active biosolids compost program.

Article 2. Continue planning for a long term composting facility as the County site is limited to the next five years.

Attachments: [eCMAR memo 2018.pdf](#)
 [Compliance Maintenance Annual Report.pdf](#)

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

Aye: 3 - Meltzer, Reed and Firkus

19-1010

Award the Lindbergh Painting Project to Classic Protective Coatings in the amount of \$693,850 with a 10% contingency of \$69,385 for a project total not to exceed \$763,235.

Attachments: [Lindbergh - Contractor Award.pdf](#)
 [Lindbergh - Contractor Award Rev 071719.pdf](#)

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

Aye: 3 - Meltzer, Reed and Firkus

6. Information Items

[19-1011](#)

Change Order #1 in the amount of \$4,035 to Mississippi Valley Coating and Painting for the purchase and installation of piping and to extend the final completion date to April 30, 2019.

Attachments: [Change Order No. 1 to Mississippi Valley Coating and Painting.pdf](#)

This item was presented.

[19-0998](#)

Monthly Reports for May 2019
- Water Distribution and Meter Team Monthly Report

Attachments: [Water Main Break Report May.pdf](#)

The report was reviewed.

7. Adjournment

Firkus moved, seconded by Reed, that the Utilities Committee meeting be adjourned at 5:09 p.m. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Reed and Firkus

Department of Public Works – Engineering Division

MEMO

TO: Utilities Committee

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

DATE: July 22, 2019

RE: Fourth Amendment to the 2018 Stormwater Management Plan Review contract with raSmith by an increase of \$15,000 for a total contact amount not to exceed \$132,500.

The Department of Public Works is requesting a fourth amendment to the contract with raSmith for 2018 Stormwater Management Plan Reviews by an increase of \$15,000, for a total contact amount not to exceed \$132,500.

Reviews for approximately five (5) stormwater management plans for site plans and two stormwater plans for subdivisions were started in 2018 but have not yet been completed or are making significant revisions requiring additional review. Staff believes that it is most efficient and cost effective to stay with raSmith to complete these plan reviews as opposed to starting with the new plan review consultant part way through a project.

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. The additional \$15,000 is within the 2019 Budget for Stormwater Management Reviews.



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

DEPARTMENT OF PUBLIC WORKS

Engineering Division
100 North Appleton Street
Appleton, WI 54911
(920) 832-6474
FAX (920) 832-6489

CITY OF APPLETON
SANITARY LATERAL REPAIR POLICY

Complaints concerning sanitary sewer back-ups should be directed to the Street Division at (920) 832-5580.

The sewer crew will then investigate and report the nature of the problem to the Foreman. If the sewer main requires no service, the Foreman will notify the property owner to inspect/clean the lateral and/or interior plumbing.

When physical repair is required on the sewer main that is beyond normal maintenance, the Street Division will request the Engineering Division to assist in the coordination of repairs through a contractor. *Normal maintenance includes debris and root removal.*

If excavation is required, televising of the lateral shall be arranged by the property owner to determine the exact nature and location of the defect prior to initiating any excavation. City engineering staff shall review the televising report to determine who is responsible for the repair (see page 2 of this policy for guidelines).

If at any time the problem is determined to be the responsibility of the City, the City reserves the right to hire the contractor of their choice to complete the repairs at the City's cost. If a private contractor has already been retained by the property owner, the contractor may continue the repair after providing the Plumbing Inspector acceptable price quotation(s) in writing which includes a maximum cost limit. Upon completion of the work, the City will make appropriate payments to the contractor(s) based upon the price quotation(s). If the Plumbing Inspector determines that unusual and/or difficult conditions exist for which the contractor is not equipped, the City Engineer shall make final determination of the contractor.

In the event that the Property owner is determined to be responsible for repairs, they must retain a licensed contractor to perform the work at their expense. A Sewer Permit and/or Street Excavation permit from the Department of Public Works will be required prior to the private contractor initiating the repairs.

Rev. 3/14

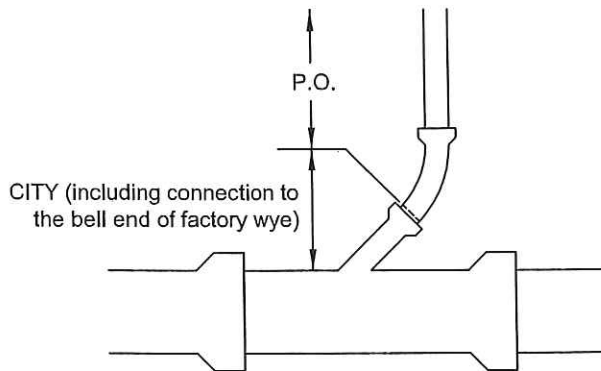
City of Appleton

Rev. 1/17

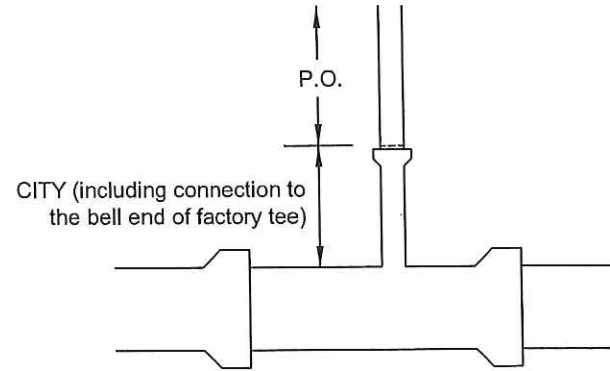
Lateral Repair Policy

(Page 2 of 2)

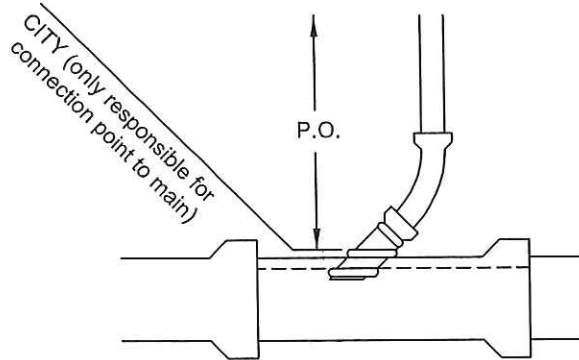
(Limits of responsibility in event of lateral problem requiring excavation and repair)



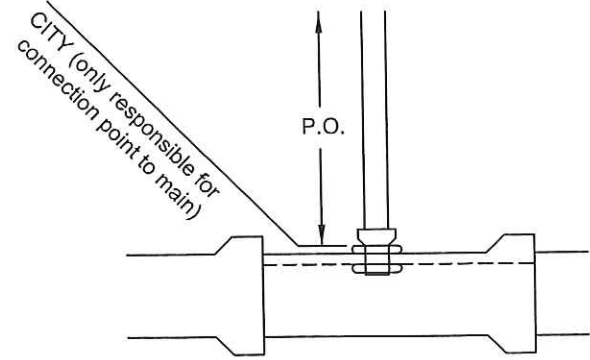
Factory Wye (top view)



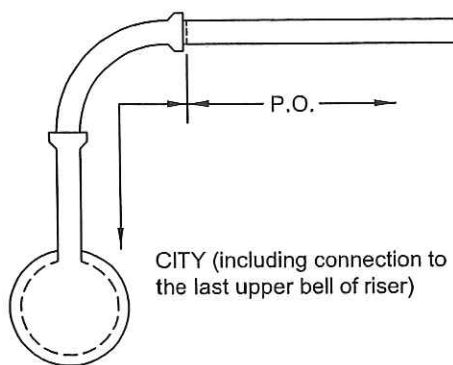
Factory Tee (top view)



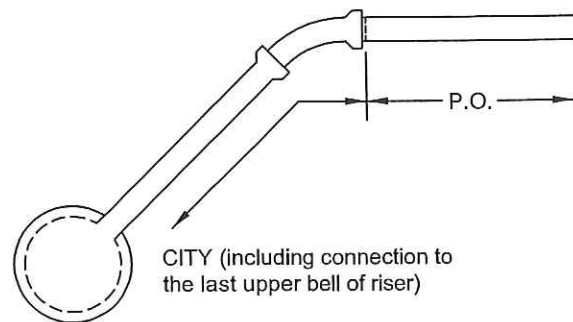
Tapped Wye / Saddle Wye (top view)



Tapped Tee / Saddle Tee (top view)



Vertical Riser (cross-section view)
(Tapped or Factory Connection)



Angled Riser (cross-section view)
(Tapped or Factory Connection)



July 22, 2019

Subject: PFAS Monitoring Request for Municipal Wastewater Treatment Facilities with Industrial Pretreatment Programs or Users Expected to be PFAS sources

Dear Permittee:

The Department of Natural Resources (hereafter department) is launching a statewide initiative to identify and quantify sources of perfluoroalkyl and polyfluoroalkyl substances (PFAS, formerly referred to as PFCs) with specific emphasis on perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). In order to accomplish this, the department is requesting that municipal wastewater treatment facilities with industrial pretreatment programs or contributing industries expected to be sources of PFAS to sample their influent and effluent for PFAS compounds.

Background

PFAS are a group of humanmade chemical compounds that have been widely used in industrial and consumer products since the 1940s. Common products containing these compounds include: nonstick coatings, paper and packaging materials, certain firefighting foams, and metal plating materials.

Studies indicate that PFOA and PFOS can cause reproductive and developmental, liver and kidney, and immunological effects in laboratory animals.¹ For humans, the most consistent findings are increased cholesterol levels among exposed populations, with more limited findings related to infant birth weights and effects on the immune system.¹ Additionally, PFAS have been shown to bioaccumulate in people, with detectable blood serum levels found in >98% of the US population.²

With some exceptions for limited industrial uses, chemical manufacturers in the United States have voluntarily ceased production of PFOA and PFOS, but these compounds are still manufactured in other countries and may be imported through consumer goods including carpets, paper and packaging, and coatings. It is also still legal to use existing stocks of PFOS-containing firefighting foams (Class B) in the United States. Due to the persistent nature of these compounds, PFAS may be present on or near sites years after they were used.

The following types of industries are known sources of PFAS compounds³:

- Platers/metal finishers
- Paper and packaging manufacturers
- Tanneries and leather/fabric/carpet treaters
- Manufacturers of parts with PTFE (polytetrafluoroethylene, Teflon type)
- Facilities that manufacture or use coatings
- Centralized waste treaters

- Dairy processing facilities and cheesemakers, where milk supply is sourced from livestock grazing on fields that have received PFAS-contaminated biosolids
- Fire-fighting equipment manufacturers
- Military bases
- Airports
- Household cleaning product manufacturers

Centralized waste treaters and/or wastewater treatment facilities are not sources that generate PFAS compounds; however, the compounds are often directed to and accumulate in or passed through these facilities.

Note: The above list may not be exhaustive.

Requested Actions

As Phase 1 of the department's initiative, the department is requesting that if your POTW has an industrial pretreatment program, industries expected to be sources of PFAS discharge wastewater to your POTW, or if you have other reason to believe your POTW effluent may contain PFAS, the department requests that your facility completes the following steps:

1. Monitor influent and effluent for PFAS: The department is requesting that the influent and effluent of your facility be sampled and analyzed for PFAS within 90 days of receipt of this letter. Although PFOS and PFOA are the primary pollutants of concern at this time, the department has an interest in a suite of 34 additional PFAS compounds. Based on past experience, the department expects that lab costs will be approximately \$300 - \$400/sample. Please submit all of the reported PFAS compound results reported by the laboratory to the department. Results should be sent to DNRWYPFASWastewater@wisconsin.gov. As our understanding of these emerging pollutants progresses, this information will likely be useful in quantifying the extent of contamination statewide. Currently, there are no USEPA-approved methods for PFAS analysis of wastewater, but the department recommends that facilities use a laboratory that utilizes an isotope dilution procedure.

2. Investigate/Reduce Sources: If the combined (additive) concentration of PFOS and PFOA in the influent or effluent is at or above 20 nanograms per liter (ng/L), the department recommends that you also conduct a review of your industrial users to identify facilities that may be potential sources of PFOA and PFOS. You will likely need to review records and interview your contacts to find out which industrial or commercial contributors use/have used or accept/have accepted PFAS-containing materials or wastes. Please note that since these compounds are persistent, they may adhere to the bottoms or sides of tanks and pits and be present long after PFAS-containing chemicals were used.

Once you have samples collected and have identified potential PFAS sources, the department would like to work with you to establish a sampling protocol of the wastewater from probable PFAS sources. After representative samples are collected and PFAS sources are more clearly identified, department staff would like to collaboratively work with municipalities and the industrial sources to reduce and eliminate PFAS in the effluent. Source reduction efforts may include: product substitution, operational controls, pretreatment, and clean-up of historical contamination.

1 – US Environmental Protection Agency (www.epa.gov/pfas/basic-information-pfas#health)

2 – Calafat et al, *Polyfluoroalkyl Chemicals in the U.S. Population: Data from the National Health and Nutrition Examination Survey (NHANES) 2003–2004 and Comparisons with NHANES 1999–2000* (ehp.niehs.nih.gov/doi/pdf/10.1289/ehp.10598)

3 – Organisation for Economic Cooperation and Development (www.oecd.org/chemicalsafety/portal-perfluorinated-chemicals/aboutpfass)

Fate and Transport Study Participation

The University of Wisconsin - Madison plans to conduct a study of twelve municipalities throughout the state that will examine the fate and transport of PFAS compounds within wastewater treatment facilities. The study will involve sampling of each facility's influent, internal points of interest, biosolids, effluent, upstream receiving water, and downstream receiving water in order to conduct a mass balance analysis and to assess how these compounds behave. For facilities participating in the study, all costs associated with the study's sampling efforts will be covered.

If you are interested in participating in this study, please contact Nate Willis at nathaniel.willis@wisconsin.gov within 45 days of receipt of this letter for consideration. Please note that interest in this study does not necessarily mean your facility will be chosen for participation. Several factors will go into determining which facilities are chosen, including but not limited to: likelihood of presence of PFAS in the effluent, the design flow of the facility, the portion of the influent that originates from industrial contributors, etc. If your facility is chosen for this study and PFAS is detected above thresholds discussed in step 2, the department requests that you complete step 2 as outlined above. Additionally, if your facility is not chosen for this study, the department still requests that the actions outlined above be completed.

The department appreciates your efforts to support this initiative. Data collected through this initiative will be used to mitigate PFAS impacts statewide. The data will also be used to evaluate and support rulemaking and associated economic impact analyses to adopt statewide water quality standards for PFAS compounds. Development of surface water quality standards for PFAS was identified as a priority in the most recent Triennial Standards Review, and the Department of Health Services has developed a recommendation for a groundwater enforcement standard of 20 ng/L combined PFOA and PFOS that the department intends to adopt. The department's intent is that completion of the steps outlined will position facilities to more easily comply with expected PFAS standards upon promulgation.

More Information

To find out more about PFAS, go to dnr.wi.gov/topic/Contaminants/PFAS.html, <https://pfas-1.itrcweb.org/fact-sheets/> or www.epa.gov/pfas. More information on industrial sources can be found at www.oecd.org/chemicalsafety/portal-perfluorinated-chemicals/aboutpfass. Toxicological information can be found at www.atsdr.cdc.gov/pfas.

If you have any questions or comments regarding this monitoring request, please contact Nate Willis at nathaniel.willis@wisconsin.gov.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Jason Knutson, P.E.
Chief, Wastewater Section
Bureau of Water Quality



Wade Strickland
Chief, Water Permits Section
Bureau of Water Quality

1 – US Environmental Protection Agency (www.epa.gov/pfas/basic-information-pfas#health)

2 – Calafat et al, *Polyfluoroalkyl Chemicals in the U.S. Population: Data from the National Health and Nutrition Examination Survey (NHANES) 2003–2004 and Comparisons with NHANES 1999–2000* (ehp.niehs.nih.gov/doi/pdf/10.1289/ehp.10598)

3 – Organisation for Economic Cooperation and Development (www.oecd.org/chemicalsafety/portal-perfluorinated-chemicals/aboutpfass)

**WASTEWATER
2019 BUDGET PERFORMANCE DATA**

Program / Criteria	Actual 2017	Actual 2018	Target 2019	2019		Projected 2019
				Mid Year	End of Year	
5411 Utility Administration						
Client Benefits / Impacts						
Safe Work Environment						
# of workers comp claims / year	1	1	0	0		0
# of first aid entries per year	5	7	0	10		10
Strategic Outcomes						
Effective Use of Budgeted Funds						
% of operational budget obligated	91%	98%	100%	46%		100%
Trained Staff						
% of staff adequately trained	98%	97%	100%	94%		94%
Average # of hours training per employee	16	16	25	37		37
CMAR grade for staffing	A	A	A	A		A
CMAR grade for operations certificate	A	A	A	A		A
Work Process Outputs						
Government reports prepared						
# of reports filed						
Compliance Report (eCMAR)	1	1	1	1		1
Biosolids Annual Report	1	1	1	0		1
Pretreatment Report	2	2	2	0		2
Discharge Report (eDMR)	12	12	12	6		12

**DEPARTMENT OF PUBLIC WORKS
MID-YEAR REVIEW**

All figures through June 30, 2019

Distribution Administration	WATER UTILITY					Business Unit 5351
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Significant 2019 Events:

Performance Data:

Client Benefits/Impacts	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Target 2019	YTD 2019
Efficient customer service						
# Cross connection inspections	6,615	8,977	5,865	24	150	310
# AquaHawk customers enrolled (total)	New Measure ----->			408	1,250	2,293
Strategic Outcomes						
Consistent and current information						
Policies reviewed/updated	1	0	1	1	1	1
Turnover ratio of inventory - Annual	0.72	0.72	0.83	1.07	0.90	NA
Work Process Outputs						
Reporting & recording keeping						
# of reports generated for PSC	1	1	1	1	1	1

**DEPARTMENT OF PUBLIC WORKS
MID-YEAR REVIEW**

All figures through June 30, 2019

Customer Service		WATER UTILITY					Business Unit 5352
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Significant 2019 Events:

Performance Data:

Client Benefits/Impacts	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Target 2019	YTD 2019
Reliable, accurate water usage						
# of large meters replaced	0	0	0	0	0	0
# of meters tested	6,981	9,266	5,879	260	50	109
# of defective meters replaced	248	436	182	6	25	2
# of meters in service	27,618	27,797	27,862	27,930	28,000	28,007
Strategic Outcomes						
Implementation of system upgrade						
# of transmitter modules replaced	New Measure				20	15
# of new meters replaced	7,090	9,573	6,098	103	15	44
Work Process Output						
Service provided						
# of service calls	1,497	1,408	1,389	1,509	1,500	753
System growth						
# of new customer meters installed	120	166	77	88	150	37

DEPARTMENT OF PUBLIC WORKS MID-YEAR REVIEW

All figures through June 30, 2019

Distribution Operations and Maintenance	WATER UTILITY					Business Unit 5353
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Significant 2019 Events:

Performance Data:

Client Benefits/Impacts	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Target 2019	YTD 2019
Reliable source at adequate pressure						
Hydrants						
Replaced/Upgrade	6	4	5	12	5	8
% of hydrants flushed	100%	100%	100%	100%	100%	100%
Water loss reported	14.0%	13.0%	14.8%	16.2%	10%	Year End
Strategic Outcomes						
Reliability of the system						
# of water main breaks	71	92	91	86	80	48
Work Process Outputs						
Preventive maintenance						
# of services replaced	0	19	33	1	23	10
# of valves exercised	796	1,506	2,144	3,010	2,300	2,243
# of valves replaced	5	1	4	11	5	7
# of curb boxes repaired	427	154	226	616	250	62
# of valves repaired		27	53	94	75	21
# of service leaks fixed	0	2	3	6	2	1

DEPARTMENT OF PUBLIC WORKS MID-YEAR REVIEW

All figures through June 30, 2019

Distribution Capital Improvements	WATER UTILITY				Business Unit 5370
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Significant 2019 Events:

Installed portion of 16" trans. Line for Town of Clayton

Performance Data:

Client Benefits/Impacts	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Target 2019	YTD 2019
Reliable and adequate service						
% of reconstructed streets with relay	100.0%	100.0%	100.0%	100.0%	100%	55.0%
# of low flow hydrants eliminated	8	5	4	4	5	4
Strategic Outcomes						
System size						
Miles of mains	373	374	377	377	377	377
% of total miles of mains reconstructed	0.90%	0.69%	0.65%	0.79%	1.14%	0.40%
# of hydrants in the City	3,344	3,361	3,383	3,401	3,368	3,396
# of low flow hydrants in the City	77	72	76	71	70	67
Work Process Outputs						
System expansion and improvement						
Miles of transmission lines added	0.00	0.35	0.21	0.00	0.00	0.30
Miles of existing mains relayed	3.36	2.58	2.46	2.96	4.33	1.75

* Moved from a manual tracking system to a more comprehensive system - GIS

DEPARTMENT OF PUBLIC WORKS MID-YEAR REVIEW

All figures through June 30, 2019

Collection Systems	WASTEWATER UTILITY	Business Unit 5427
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Significant 2019 Events:

Performance Data:

Client Benefits/Impacts	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Target 2019	YTD 2019
Benefit of inspection program						
# of defects identified from TV report	3*	34	34	0***	25	5
Compliance with regulation						
# of protruding taps identified	0*	9	6	0***	5	0
# of cross connections identified	86	103	83	15	55	0
Strategic Outcomes						
Reliability of system maintenance program						
# of trouble calls	28	17	21	36	30	2
# of system blockages removed	3	1	0	4	3	1
% of total system televised	14.1%	14.2%	13.1%	13.8%	11.00%	0.0%
Work Process Outputs						
Maintenance performed						
% of total system cleaned	46.6%	49.0%	50.7%	75.2%	50.0%	15.0%
# of spot repairs made	46*	0**	28	20	22	0
Safeguarding health and safety						
# of protruding taps removed	3*	0**	5	3	5	0

* Totals vary due to 2014 and 2015 funds were bid in 2014 and were completed in 2015

** Timing of contract pushes work into next calendar year

*** No design project in 2018, therefore no items were identified

7/23/2019

DEPARTMENT OF PUBLIC WORKS MID-YEAR REVIEW

All figures through June 30, 2019

Public Works Capital Improvements		WASTEWATER UTILITY					Business Unit 5431
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Significant 2019 Events:

Installed new sanitary sewer on Prospect Avenue from Haskell to Perkins Streets

Performance Data:

Client Benefits/Impacts	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Target 2019	YTD 2019
Reduction of wastewater treatment cost						
# of manholes-rehab/rebuilt	23	34	54	15	25	16
Distribution section rating from CMAR	A	A	A	A	A	A
# of laterals replaced	198	134	222	167	200	96
Strategic Outcomes						
Improvements to the sanitary sewer system						
Total miles of sanitary sewer	323	325	325	325	324	330
% of total miles of sanitary sewer reconstructed	0.46%	0.60%	0.58%	0.59%	0.64%	0.30%
Work Process Outputs						
Restoration of sanitary sewers						
Miles of existing sanitary sewer reconstruct.	1.47	1.95	1.89	1.93	2.11	1.00
Expansion of sanitary sewer system						
Miles of new sanitary sewer added	0.49	1.04	0.06	0.86	1.00	0.33
Reduction of treatment costs						
# of seals installed (I & I)	94	94	81	61	100	20

DEPARTMENT OF PUBLIC WORKS MID-YEAR REVIEW

All figures through June 30, 2019

Administration	STORMWATER	Business Unit 5210
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Significant 2019 Events:

Performance Data:

Client Benefits/Impacts	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Target 2019	YTD 2019
Economic development						
Master plans completed	0	0	2***	1#	3	0
Strategic Outcomes						
Alternative sources of revenue						
# of grants applied for	0	1*	0	2##	0	1
Value of grant dollars awarded or applied for future reimbursement	\$0	\$349,790 *	\$0	\$0	\$0	\$630,000
Safe, reliable future level of service						
Acre feet of storage identified for future use	0	.75 **	0	10.2#	0	0
# of DNR non-compliance notices received	0	0	0	0	0	0
Work Process Outputs						
Preventive maintenance of system						
Erosion control plans reviewed (permits)	48	49	48	44	40	24

* Northland Pond DNR Municipal Flood Control Grant

** Cotter Street Pond

*** Coop Pond Study, Evergreen/Alvin Study

Spartan Drive Preliminary Engineering

Leona Pond UNPSSW and MFC Grants

7/23/2019

DEPARTMENT OF PUBLIC WORKS
MID-YEAR REVIEW
All figures through June 30, 2019

STORMWATER	
Facility Maintenance	Business Unit 5220

Significant 2019 Events:

Performance Data:

Client Benefits/Impacts	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Target 2019	YTD 2019
Benefit of inspection program						
# of spot repairs identified from TV reports	5*	21	21	0***	18	10
Compliance with regulation						
# of protruding taps identified	5*	15	15	0***	10	0
# of cross connections identified	0	0	0	0	0	0
Strategic Outcomes						
Effectiveness of maintenance program						
# of trouble calls	19	28	54	51	15	66
% of total system televised	9.9%	10.2%	9.2%	7.8%	10%	1.3%
Work Process Outputs						
Preventive maintenance						
Cubic yards of material collected from street sweeping operations	5,565	4,059	5,570	4,186	4,000	2,110
% of total storm sewer system cleaned	11.3%	11.1%	9.6%	7.8%	12.0%	2.7%
Safeguarding health and safety						
# of protruding taps removed	23*	0**	10	8	10	0
# of spot repairs made	37*	0**	16	12	15	0

* Totals vary due to 2014 and 2015 funds bid in 2014 and were completed in 2015

** Timing of contract pushes work into next calendar year (2017)

**DEPARTMENT OF PUBLIC WORKS
MID-YEAR REVIEW**

All figures through June 30, 2019

Leaf Collection	STORMWATER	Business Unit 5225
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Significant 2019 Events:

Performance Data:

Client Benefits/Impacts	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Target 2019	YTD 2019
Service provided						
Number of collection cycles	5	4	5	4	3	0
Strategic Outcomes						
Cost effective service provided						
Cost/cubic yard collected	\$11.00	\$11.36	\$12.99	\$10.53	\$12.00	\$0.00
Work Process Outputs						
Safer streets and cleaner storm water system						
Cubic yards of leaves collected	37,100	38,440	27,360	30,545	35,000	0

DEPARTMENT OF PUBLIC WORKS
MID-YEAR REVIEW
All figures through June 30, 2019

Capital Construction	STORMWATER	Business Unit 5230
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Significant 2019 Events:

Performance Data:

Client Benefits/Impacts	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Target 2019	YTD 2019
Solutions to system discrepancies						
Residential mini-sewer/drainage complaints						
Solved	99	63	44	35	90	0
Outstanding	95*	52	41	56	45	92
Strategic Outcomes						
Improvements to the stormwater system						
Total miles of storm sewer in the city	292	293	290	289	290	299
% of total miles reconstructed	0.29%	0.49%	0.47%	0.20%	1.50%	0.16%
Acres of new land available	0	0	0	0	0	0
Integrity and growth of the system						
Acre feet of storage developed	3.5**	0.0	5.7***	21#	20.2****	0.0
Work Process Outputs						
Restoration of storm sewers						
Miles of storm sewer reconstructed	0.85	1.42	0.79	0.58	4.35	0.46
Expansion of storm sewer system						
Miles of new storm sewer added	0.34	0.58	2.3	2.15	0.65	1.47

* Audited/cleaned up list in 2014 after 2015 Target was developed, 90 on CSR list & 23 on Clearwater inspection list

** Birchwood Pond

*** Cotter Pond (2), JJ/Lightning Pond (3.7). Northland Pond (21) to be completed in 2018

**Appleton Wastewater Treatment Plant
Operations Synopsis
April 2019 – June 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 seven days. Dewatering processes functioned well and converted 18.2 Million Gallons (MG) of primary digested sludge to biosolids.

Summary of Treatment

Parameter	April	May	June	Average
Industrial Flow (MG)	53.7	53.3	56.4	54.5
Domestic Flow (MG)	501.1	496.3	361.4	452.9
Total Flow (MG)	554.8	549.6	417.8	507.4
Influent CBOD Load (Avg Daily lbs)	27,112	26,179	28,191	27,161
Influent TSS Load (Avg Daily lbs)	41,194	41,151	44,826	42,390
Influent Phosphorous Load (Avg Daily lbs)	496	474	469	480
Influent Ammonia Load (Avg Daily lbs)	2,108	1,897	2,162	2,056
Effluent CBOD Load (Avg Daily lbs)	1,160	828	464	817
Effluent TSS Load (Avg Daily lbs)	408	257	224	296
Effluent Phosphorous Load (Avg Daily lbs)	24	19	18	20
Effluent Ammonia Load (Avg Daily lbs)	714	464	171	450
% Treatment Removal of CBOD	95.7	96.8	98.4	97.0
% Treatment Removal of TSS	99.0	99.4	99.5	99.3
% Treatment Removal of Phosphorous	95.2	96.0	96.2	95.8
% Treatment Removal of Ammonia	66.1	75.5	92.1	77.9

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. Project contract final completion is dated May 26, 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.
- **Briarcliff and Midway Improvement Projects:** Project substantial completion was reached in late June with final completion expected before the end of July.
- **Compost Site Evaluation:** Work 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). Public bidding for construction is anticipated to occur in late July.

- **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. A kick-off meeting was held at the wastewater plant on June 19th to overview the various project elements leading into the preliminary engineering phase.

Regulatory Summary

- Monthly Discharge Monitoring reports for April, May, and June 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.
- Began Disinfection Season sampling and analysis.
- Discharge Monitoring Report (DMR) and Health Department testing program objectives associated with sampling and analysis were met during the reporting period.
- Successfully submitted monthly DMR reports for April, May June.
- During the period conducted analysis of proficiency samples required for laboratory recertification under Wisconsin Administrative Code NR 149.
- Began the training of newly hired staff with laboratory duties.

Staffing & Training

- All staff completed Utilities Department Safety training requirements for the year.
- The AWWTP hired three Liquids Operators during the reporting period. Welcome aboard, Emily Herder, Anthony Rottier, and Elizabeth Martin!

EFFLUENT QUALITY SUMMARY
January 2018/2019 – June 2018/2019

Table 1 – 2018 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	23 ⁽³⁾	10, 11, 4.4, 18	400 col/100ml Geo.Mean	0.038 mg/L daily	6.0 - 9.0 daily limit
January 2018	8	4	331	0.16	12.4	2.82	NA	NA	7.0/7.3
February 2018	6	4	337	0.31	26.0	3.47	NA	NA	7.0/7.3
March 2018	6	2	211	0.39	34.6	4.63	NA	NA	7.2/7.5
April 2018	5	4	598	0.42	62.0	5.60	NA	NA	7.5/7.6
May 2018	4	1	205	0.38	59.0	2.11	5	<0.032	7.4/7.7
June 2018	4	3	302	0.47	46.0	1.04	6	<0.032	7.2/7.6

Table 2 – 2018/2019 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 ⁽²⁾ Coliform Colonies/ (100 ml)	Chlorine ⁽²⁾ Residual (mg/L)	pH (s.u.)
January 2019	8	5	480.00	0.23	24.0	1.37	NA	NA	6.8/7.1
February 2019	10	16	1,253.00	0.46	35.0	3.58	NA	NA	6.8/7.2
March 2019	13	6	1,169.00	0.25	38.0	11.12 ⁽⁴⁾	NA	NA	7.0/7.4
April 2019	7	3	408.00	0.16	24.0	5.11	NA	NA	7.1/8.1
May 2019	5	2	257.00	0.13	19.0	2.88	5	<0.032	6.9/7.2
June 2019	4	2	224.00	0.15	18.0	1.46	3	<0.032	6.7/7.1

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.
- 4) Effluent ammonia monthly average limit of 10 mg/l was exceeded in March with an average concentration of 11.12 mg/l reported.
A temporary shutdown of the BFP filtrate line was required in March to facilitate piping modifications and maintenance activities.

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							\$ 1,209,113.72
Dean Foods	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -							\$ -
Hickory Meadows	\$ 38,366.69	\$ 36,715.45	\$ 55,880.13	\$ 39,309.71	\$ 42,620.93	\$ 31,540.84							\$ 244,433.75
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							\$ 287,711.27
Moovin Materials	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -							\$ -
Waldvogel Trucking	\$ 2,514.92	\$ 1,833.16	\$ 2,605.28	\$ 2,063.25	\$ 1,994.54	\$ 1,964.68							\$ 12,975.83
2019 Total	\$ 271,217.51	\$240,466.77	\$ 301,788.32	\$ 301,125.30	\$ 327,779.40	\$ 311,857.27	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,754,234.57
2018 Total	\$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

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: July 17, 2019

Copies: K. Rindt (via email)

C. Shaw (via email)

B. Kreski

Utilities Committee

**Appleton Water Treatment Plant
Operations Synopsis
April, May, and June 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 Q1 of 2019 (quarter over quarter or Q/Q), average water production increased by 3.4% consistent with seasonal demand. Compared with Q2 of 2018 (year over year or Y/Y), average water production decreased consistent with this spring's wet weather.

Raw Water Quality. Q/Q average raw water turbidity increased consistent with loss of Lake Winnebago ice cover. Y/Y average raw water turbidity is comparable to 2018.

Energy Efficiency. In terms of applied electrical energy, Q/Q efficiency improved by nearly 2%. However, Y/Y performance is consistent with Q2 of 2018.

WATER PLANT PARAMETERS	Previous (Q1 2019)			Current (Q2 2019)		
	January	February	March	April	May	June
Water Treated						
Finished (million gallons)	267.1	246.6	271.0	258.2	276.8	276.7
Finished (million gallons / day), average	8.6	7.9	8.7	8.3	8.9	8.9
Electrical Energy (WTF)						
Consumption (Megawatt-hours)	440.3	427.2	476.2	433.4	457.9	470.8
MWH / million gallons produced	1.65	1.73	1.76	1.68	1.65	1.70
Turbidity						
Lake (NTU)	2.8	1.4	2.8	14.7	7.5	8.6
Finished (NTU)	0.02	0.02	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	81	81	82	81
Compliance with Standard	100%	100%	100%	100%	100%	100%
Disinfectant Contact Time						
Minimum CT Ratio Provided	0.5	1.3	1.0	1.7	2.4	4.3
Hardness						
Lake Total (mg/L)	194	201	202	180	164	163
Finished Total (mg/L)	106	110	105	91	74	72
Finished Water Quality						
Total Chlorine (mg/L)	1.93	1.90	1.88	1.85	1.87	1.83
pH (SU) Min/Max	8.8/8.9	8.8/8.9	8.8/8.9	8.7/8.9	8.1/8.7	8.5/8.9
Water Temperature (Degrees F)	33.4	34.9	36.5	42.3	55.6	67.3
Fluoride (mg/L)	0.64	0.67	0.70	0.74	0.70	0.72
Orthophosphate (mg/L)	.070	0.70	0.70	0.66	0.77	0.90

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

- Cleaned Softener #4 and North Recarbonation basin.
- Operated two UV Disinfection reactors continuously during the quarter.
- Replaced lamps in UV Disinfection reactors N-2, S-1.
- Continued database development for the implementation of the new plant data management and reporting system (Hach WIMS).
- Initiated design phase for the Lake Station mechanical/electrical rehabilitation.
- Continued the Chemical Systems Upgrade Project Phase 1 with completion expected in August 2019.
- Continued update to the Distribution System Master Plan in collaboration with DPW. Study completion scheduled for Q3 of 2019.
- Initiated the Lindbergh Standpipe re-coating project with staff assisting in specifications development.

Staffing & Training

- All staff have completed City Safety as well as Utilities Department Safety training requirements for the year.
- The Operations Supervisor attended annual Supervisory Training.

WATER MAIN BREAK/JOINT LEAK REPORT JUNE 2019

YEARLY WATER MAIN BREAK COMPARISON

<u>JUNE 18</u>	<u>JUNE 19</u>	<u>YTD 18</u>	<u>YTD 19</u>
2	3	42	49

LOCATION	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
323 N. Christine Street	257087	CIP	6"	1954	2 holes	5 hours	362,414	\$2,203.48
2906 E. Newberry Street	257148	CIP	12"	1963	6"	3.5 hours	1,276,351	\$7,760.21
Pine/Prospect Ave.	257620	CIP	6"	1935	18" split	3 hours	522,354	\$3,175.91
								\$0.00
								\$0.00
								\$0.00
								\$0.00
								\$0.00

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