



City of Appleton

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

Meeting Agenda - Final Utilities Committee

Tuesday, April 26, 2022

5:00 PM

Council Chambers, 6th Floor

1. Call meeting to order

2. Roll call of membership

3. Approval of minutes from previous meeting

[22-0504](#) Approval of the April 12, 2022 Utilities Committee Meeting Minutes.

Attachments: [April 12, 2022 Utilities Committee Meeting Minutes.pdf](#)

4. **Public Hearings/Apearances**

5. **Action Items**

[22-0556](#) Approve the acceptance of the Department of Natural Resources Safe Drinking Water Loan Program Grant of \$505,000 for replacement of private lead service lines in Appleton.

[22-0538](#) Elect a Vice-Chair for the Utilities Committee.

6. **Information Items**

[22-0539](#) Confirm Meeting Date and Time for the Utilities Committee to meet.

[22-0541](#) Designate a Contact Person who can answer specific questions about agenda items for the Utilities Committee.

[22-0543](#) 2021 GTLC Annual Report

Attachments: [2021 GTLC Annual Report.pdf](#)

[22-0505](#)

Monthly Reports for January, February, and March 2022:

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

Attachments: [2022 QTR 1 Wastewater Synopsis.pdf](#)

[2022 QTR 1 Water Synopsis.pdf](#)

[Water Main Breaks - March 2022.pdf](#)

7. Adjournment

Notice is hereby given that a quorum of the Common Council may be present during this meeting, although no Council action will be taken.

Reasonable Accommodations for Persons with Disabilities will be made upon Request and if Feasible.

For questions on the agenda, contact Chris Shaw at 920-832-5945 or Paula Vandehey at 920-832-6474.



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Meeting Minutes - Final Utilities Committee

Tuesday, April 12, 2022

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: 3 - Meltzer, Smith and Doran

Excused: 2 - Martin and Thao

3. Approval of minutes from previous meeting

[22-0448](#)

Approval of the March 22, 2022 Utilities Committee Meeting Minutes.

Attachments: [March 22, 2022 Utilities Committee Meeting Minutes.pdf](#)

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

Aye: 3 - Meltzer, Smith and Doran

Excused: 2 - Martin and Thao

4. **Public Hearings/Appearances**

5. **Action Items**

[22-0449](#)

Approval to single source and award 2022E Stormwater Consulting Services Contract for assistance with the Interstate 41 Reconstruction Project to Brown and Caldwell in an amount not to exceed \$30,000.

Attachments: [2022E Single Source 41 Reconstruction BC award.pdf](#)

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

Aye: 3 - Meltzer, Smith and Doran

Excused: 2 - Martin and Thao

6. **Information Items**

[22-0450](#)

2022 Water Treatment Facility Power Generation Test

Attachments: [220328 Utilities Memo - 2022 WPPI Test and Payment.pdf](#)

This item was reviewed.

7. Adjournment

Smith moved, seconded by Doran, that the Utilities Committee Meeting be adjourned at 5:05 p.m.. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Smith and Doran

Excused: 2 - Martin and Thao



2021 GTLC Annual Report

for Appleton's participation in the Sustainability Component of
the Green Tier Legacy Communities Charter

MISSION STATEMENT:

The City of Appleton is dedicated to meeting the needs of our community and enhancing the quality of life.

TRANSPORTATION

- Implemented eighth year of City's new Sidewalk Poetry Program, with 44 poems stamped in 130 locations throughout the city.
- Implemented eleventh year of adopted City-Wide Bike Lane Plan, for a total of 24.4 miles of bike lanes.
- Added 1.0 miles of new bike lanes (W. Glendale Avenue and West Frontage Road) as part of the City's On-Street Bike Lane Plan.
- Maintained designation of Silver Level for Bicycle Friendly Community by the League of American Bicyclists.
- Implemented 4th year of new Crosswalk Marking/Enhancement Policy for Uncontrolled Intersection Crossings, upgrading crossings at Meade/Grant and Wisconsin/Bennett intersections.
- Valley Transit is operating 23 Clean Diesel (low emission) buses, reducing emissions by >90%.
- Implemented a Mobility Manager position to assist with removing individual transportation barriers.
- Implemented a Travel Training position to train individuals how to use the Valley Transit bus system.
- Implemented a Partners in Travel Training (PITT Crew) program to proficiently train other Travel Trainers. There are currently >50 PITT Crew members.
- Worked extensively with World Relief for the provision of transportation training for refugees.
- Conducted a pilot dock less electronic scooter program with Bird. We will have a second pilot in 2022 building off successes of 2021 pilot program which included 25,627 e-scooter trips.
- Obtained an Outagamie County Greenway Implementation Grant of \$20,627 towards the CTH E Shoulder Widening Project to accommodate bicycles.
- Joint project with Village of Harrison to pave Coop Road with widened shoulder on east side of roadway to accommodate bikes and pedestrians.
- Installed two new bike Fix-It stations on trails
- Completed trail connection in Memorial Park from Universal Playground to Witzke Blvd.
- Reconstructed trail segments on the Highview trail and Memorial Park trail
- Wayfinding signage approved at Eagle Point Senior Living Complex and John Street
- Completed Facilities ADA Audit update

LAND USE

- Utilized mulch from damaged trees. Have used on playgrounds and various landscaping.
- Incorporated horticultural vinegar for weed control in park playgrounds.
- Utilize biosolids-compost to top-dress athletic fields reducing needs for fertilizers.
- Implemented eighth year of our Urban In-fill Tree Planting Program, for a total of 31,035 terrace trees.
- Received Tree City USA Award for 30th consecutive year.
- Remediated invasive plants in various locations. Also, in-house staff led an effort to eliminate buckthorn.
- Accessory dwelling units (ADUs) have become an important component of the housing stock in many communities – both large and small – in the United States. By providing housing on existing lots in developed neighborhoods, ADUs are a form of land use that makes good use of land and public infrastructure investment. ADUs provide a mix of housing that responds to changing family needs. The ADU ordinances were approved by Council on July 7th, 2021, and went into effect on July 13th, 2021.
- The C-1 Neighborhood Mixed Use District was updated to implement recommendations from the *Comprehensive Plan 2010-2030*. These changes created a zoning district to accommodate mixed-use infill and redevelopment that is pedestrian-oriented, including a 50% reduction in required parking spaces. The updated C-1 District was approved by Common Council.
- The R-3 Multi-Family District was updated to allow for increased residential density. The revised lot area requirement now allows for twice as many multi-family dwelling units on a parcel, leading to more efficient use of land. The updated R-3 District was approved by Common Council.
- Multiple sections of the Zoning Ordinance were amended to allow for zero lot line two-family dwellings, which provides an additional housing option for residents. This Zoning Ordinance amendment was approved by Common Council.
- Common Council approved a Zoning Ordinance amendment that allows for an administrative adjustment to reduce required parking spaces by up to 20%. In some cases, this will result in less impervious surface devoted to off-street parking.



ENERGY

- The Appleton Wastewater Treatment Plant has installed a high efficiency turbine that has ensured the annual reduction of 1,576,800 kWh at the facility. This installation is the second-high efficiency turbine installation at the facility.



- Performed a solar analysis for the roof top of the 7,740 sq. ft. Biosolids Solids Storage Addition at the wastewater plant that will be constructed in 2022 – 2023.
- 204 LED fixtures replaced existing fluorescent fixtures throughout City facilities (see table below for details).
- 179 LED fixtures installed throughout Parks and Trails. (see table below for details)
- Installed a 296-kw photovoltaic system consisting of 631 – 475-watt solar panels on the Municipal Services Building.

2021 City of Appleton Facility, Parks, and Trails - LED Fixture Installations	
Facility LED fixtures installed	Quantity
Water Treatment Plant Interior	129
Wastewater Treatment Plant F2-bldg	18
Wastewater Treatment Plant S-bldg. Interior	56
Fire Station #2 Exterior	1
Total	204
Park & Trail LED fixtures installed	Quantity
Appleton Memorial Park Jones Building Exterior	12
Appleton Memorial Park Parking Lots	20
Pierce Park Site (phase II)	10
Telulah Park Small Pavilion Exterior	6
Scheig Center Interior	131
Total	179



WATER

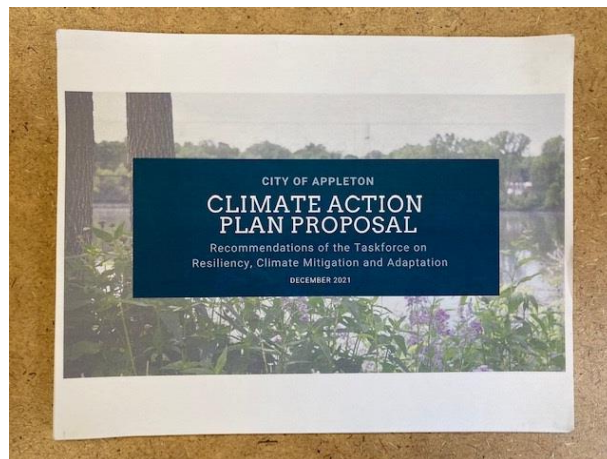
- Continued to maintain City's 56 wet ponds and 12 dry ponds to provide water quality and quantity benefits to the community.
- City mowers continue to be equipped with mulching decks. In addition, leaves are mulched in place on City properties.
- The Appleton Wastewater Treatment Plant removed 167,000 pounds of phosphorus and reduced phosphorus discharges to the Fox River by 96%.
- Relayed 3.2 miles of old leaking, undersized watermain.
- Utilized our new water correlator to proactively locate leaks to reduce overall water loss and damage to infrastructure.
- Continued our new private sanitary laterals replacement program from sewer main to the home on selected streets.
- Annual Fox Wolf Watershed Alliance clean-up was conducted.
- Developed a Lead Service Line Replacement Program and corresponding Ordinance.
- Council allocated \$1 million of ARPA funds towards the lead service line replacement program.

WASTE

- The City's wastewater treatment plant operates the only WPDES permitted biosolids composting operation in Wisconsin. Over 95,000 cubic yards of the City's leaves, brush, and digested biosolids from the wastewater plant have been composted and then offered up to residents and projects.
- Utilized chips from street tree removals as playground and landscape mulch.
- Performed recycling in all City parks.
- Gained Council approval of operational changes to bulky overflow collection services to promote re-use of household items and reduce tonnage to the landfill.

HEALTHY COMMUNITY PLANNING

- The Department of Public Works was a sponsor of the Fox River Cleanup Day on 5/1/2021.
- Continued to provide and expand recreational opportunities with a focus on health through the Parks and Recreation Department.
- Staff continued implementation of the recommendations within the City's *Comprehensive Plan 2010-2030*.
- Police Department encouraged and/or partnered with others, such as the Chamber of Commerce to advance workplace wellness programs.
- The City of Appleton is an active participant in the Legacy Community Alliance for Health.
- The City of Appleton created a Climate Change Task Force and completed an initial report "Climate Action Plan Proposal".



- The Appleton Fire Department upgraded its medical service level from Emergency Medical Responder (EMR) to Emergency Medical Technician (EMT) on January 1, 2021. This constituted over 100 hours of training for each employee that increased their certification level.
- The Appleton Fire Department is working toward upgrading its medical service from EMT to Paramedic. Paramedic is the highest level of pre-hospital care.
- Conducted a pilot on-street parklet with Appleton Downtown Inc. and now developing an On-Street Parklet Policy.
- The Library hosted a guided nature walk at Wild Ones to explore the benefits of native plants.
- The Library hosted a virtual Master Gardeners program series, highlighting topics such as growing vegetables organically, garden tours, invasive plants and controlling pests organically.
- The Library hosted a virtual Civic Conversation program on climate change, featuring Dr. Pablo Toral from Beloit College sharing ways to make state, national, and international impact, and Diane Perschbacher with the Sierra Club sharing tips for making an impact individually and locally.

- The Library hosted programs for all ages in city parks, including book clubs, an art workshop incorporating nature, a breathing session for improving physical and mental health, and a Kairos Alive dance and movement session.
- The Library held a community read featuring author Alex Gino’s book, *Melissa*, and companion programming related to transgender and other LGBTQ+ identities and experiences. The City of Appleton is involved in the “Imagine Fox Cities initiative” with multiple city staff serving on the leadership, engagement, and belonging committees. This is an ongoing regional community visioning project to increase well-being throughout the region.

LEGACY COMMUNITIES’ SUSTAINABLE STRATEGIES

A copy of the Legacy Communities Sustainable Strategy Spreadsheet (aka Appendix 3 of the Legacy Communities Charter) is included as an attachment to this report.

**Appleton Wastewater Treatment Plant
Operations Synopsis
January 2022 – March 2022**

Wastewater Treatment Program

- The Appleton Wastewater Treatment Plant (AWWTP) final effluent met Wisconsin Department of Natural Resources (WDNR) discharge monitoring reporting limits for carbonaceous biochemical oxygen demand (CBOD), total suspended solids (TSS), phosphorous, and ammonia. The plant maintained good treatment and a healthy microbiological population with a sludge retention time of 10.5 days. Dewatering processes functioned well and converted 18.9 million gallons (MG) of primary digested sludge to biosolids.

Summary of Treatment

Parameter	January	February	March	Average
Industrial Flow (MG)	35.6	30.4	19.5	28.5
Domestic Flow (MG)	227.8	186.0	420.7	278.2
Total Flow (MG)	263.4	216.4	440.2	306.7
Influent CBOD Load (Avg Daily lbs)	29,997	23,256	22,334	25,196
Influent TSS Load (Avg Daily lbs)	48,776	47,801	45,755	47,444
Influent Phosphorous Load (Avg Daily lbs)	623	443	477	514
Influent Ammonia Load (Avg Daily lbs)	2,226	1,860	1,978	2,021
Effluent CBOD Load (Avg Daily lbs)	416	380	693	496
Effluent TSS Load (Avg Daily lbs)	250	345	604	400
Effluent Phosphorous Load (Avg Daily lbs)	14	13	26	18
Effluent Ammonia Load (Avg Daily lbs)	103	66	80	83
% Treatment Removal of CBOD	98.6	98.4	96.9	98.0
% Treatment Removal of TSS	99.5	99.3	98.7	99.1
% Treatment Removal of Phosphorous	97.8	97.1	94.5	96.5
% Treatment Removal of Ammonia	95.4	96.5	96.0	95.9

Work in Progress:

- 2019 Appleton Wastewater Plant Improvement Projects: The project includes replacement of the Return Activated Sludge (RAS) pumps, process piping modifications (e.g., blended sludge, filtrate, waste gas flare), outside secondary chemical offloading containment repairs, primary clarifiers #5 & #6 drive replacements (2020 CIP), and H-Building effluent pump replacements (2020 CIP). During the reporting period, Staab Construction (Staab) completed the replacement of the H-Building effluent pumps, installation, and commissioning of four RAS Pumps (11 of 12 installed), and replacement of the blended sludge pipe to reach the point of substantial completion. Final project completion was extended to June 30, 2022 because of ongoing supply chain disruptions (i.e. RAS Pump 11 motor) and recently approved change orders.
- Appleton Wastewater Plant Sludge Storage Building Addition: Applied Technologies, Inc. (ATI) advanced preliminary design work on the concept selected by Project Team staff which best met the needs of the AWWTP from a regulatory, functionality, reliability, efficiency, and capital cost standpoint. ATI provided +90% design plans for review during the reporting period. Ongoing delays with the DNR plan review has contributed to pushing back the public bidding phase into the second quarter of 2022.

- 2021 Appleton Wastewater Plant Solids Dewatering Equipment Upgrades: McMahon Associates, Inc. (McMahon) continued engineering services as part of the Solids Dewatering Equipment Upgrades project. The AWWTP will be adding one additional BFP (for a total of four new) which will provide the required dewatering capacity based on future growth projections and redundancy to facilitate critical maintenance events. McMahon developed the design plans during the reporting period to approximately 80%. The public bidding phase is scheduled to sometime in the second quarter of 2022 once the bid results of the Sludge Storage Building Addition project are known.
- 2021 Secondary Clarifier Drive Rebuild Project: On June 2, 2021, Common Council approved contract award for the removal, rebuilding, and reinstallation of drive equipment on Secondary Clarifiers #1 through #6 to Sabel Mechanical. Common Council also approved the sole source purchase of the associated rebuild parts through the original equipment manufacturer, Evoqua. Supply chain disruptions contributed to significant upfront delays with delivery of major parts and equipment. Complete shipments were finally received late in September 2021 which allowed Sabel to commence with the removal of drives on Secondary Clarifiers #3 and #6 on October 5, 2021. Final project completion is not anticipated to occur until late spring or early summer of 2022.

Regulatory Summary

- Monthly Discharge Monitoring reports for January, February, and March were filed electronically on time for regulatory compliance.
- The AWWTP Wisconsin Pollution Discharge Elimination System (WPDES) electronic permit application was submitted on October 2, 2021, as part of reissuance. The current WPDES permit expired on March 31, 2022. The AWWTP continues to operate under the expired permit limits until DNR reissues a permit. Procedurally, the DNR has yet to submit a draft permit for review and public comment. The exact timeline is not yet known for when that step will occur but the DNR is anticipating that the reissued permit will be administered in October 2022.

Laboratory

- All sampling and laboratory testing procedures were performed in accordance with requirements outlined in the AWWTP WPDES permit.
- Discharge Monitoring Report (DMR) and Health Department testing program objectives associated with sampling and analysis were met during the reporting period.
- Analysis of Double-Blind Proficiency samples for laboratory recertification occurred during the reporting period.
- Sampling of influent in support of Wisconsin State Lab of Hygiene COVID Sewage Surveillance continued during the reporting period.

EFFLUENT QUALITY SUMMARY
October 2020/2021 – March 2021/2022

Table 1 – 2020-2021 Monthly Permit Summary

Month	CBOD (mg/L)	TSS (mg/L)	TSS (lbs/day)	P (mg/L)	P ⁽³⁾ (lbs/day)	NH3-N ⁽¹⁾ (mg/L)	Fecal ⁽²⁾ Coliform Colonies/ (100 ml)	Chlorine ⁽²⁾ Residual (mg/L)	pH (s.u.)
Permit Limit	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
October 2020	6	4	373	0.31	26	0.88	NA	NA	7.1/7.4
November 2020	6	3	286	0.19	18	0.59	NA	NA	6.9/7.2
December 2020	7	5	347	0.28	20	3.96	NA	NA	6.9/7.1
January 2021	7	2	161	0.27	19	11.70	NA	NA	6.9/7.3
February 2021	8	6	420	0.33	24	14.20	NA	NA	7.0/7.3
March 2021	7	4	473	0.22	25	1.74	NA	NA	7.0/7.2
			Nov - April Period Average⁽³⁾		21.0				
			May - October Period Average⁽³⁾		22.5				

Table 2 – 2021-2022 Monthly Permit Summary

Month	CBOD (mg/L)	TSS (mg/L)	TSS (lbs/day)	P (mg/L)	P ⁽³⁾ (lbs/day)	NH3-N ⁽¹⁾ (mg/L)	Fecal ⁽²⁾ Coliform Colonies/ (100 ml)	Chlorine ⁽²⁾ Residual (mg/L)	pH (s.u.)
October 2021	5	4	254	0.37	24	0.50	NA	NA	7.3/7.3
November 2021	6	4	223	0.28	18	0.69	NA	NA	6.5/7.4
December 2021	6	4	281	0.18	13	1.38	NA	NA	7.1/7.2
January 2022	6	4	250	0.20	14	1.43	NA	NA	6.1/7.1
February 2022	6	5	345	0.20	13	1.03	NA	NA	6.8/7.0
March 2022	5	4	604	0.19	26	0.66	NA	NA	6.8/7.2
			Nov - April Period Average⁽³⁾		16.7				
			May - October Period Average⁽³⁾		21.1				

NOTES:

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

YEAR 2022 RECEIVING STATION REVENUE

Hauler	January	February	March	April	May	June	July	August	September	October	November	December	Y-T-D Total
A. & B Leist Trucking	\$ 155,140.59	\$130,533.65	\$ 156,997.30										\$ 442,671.54
Buttles Custom Ag	\$ -	\$ -	\$ -										\$ -
Hickory Meadows	\$ 24,903.48	\$ 20,475.06	\$ 32,031.60										\$ 77,410.14
Holland Sanitary Dist. 1	\$ -	\$ -	\$ -										\$ -
Jeff Waldvogel Trkkg.	\$ 34,629.34	\$ 34,267.37	\$ 38,307.65										\$ 107,204.36
Movin Materials	\$ -	\$ -	\$ -										\$ -
Waldvogel Trucking	\$ 1,638.34	\$ 1,815.63	\$ 1,789.65										\$ 5,243.62
2022 Total	\$ 216,311.75	\$187,091.71	\$ 229,126.20	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 632,529.66
2021 Total	\$160,614.00	\$157,415.55	\$178,568.93	\$193,304.25	\$197,959.99	\$183,861.33	\$240,826.87	\$261,064.97	\$231,369.79	\$217,146.14	\$172,718.91	\$ 173,227.16	\$ 2,368,077.89

- 3% Rate Increase effective 1/1/18
- 1% Rate Increase effective 1/1/19
- 5% Rate Increase effective 10/1/20
- 4% Rate Increase effective 01/01/22

Date: April 20, 2022
Copies: K. Rindt (via email)
C. Shaw (via email)
B. Kreski
Utilities Committee

**Appleton Water Treatment Plant
Operations Synopsis
January, February, March 2022**

Performance Summary

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

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

Water Production. Compared with Q4 of 2021 (Q/Q) average production increased by over 2%.

Raw Water Quality. Average Q/Q lake turbidity declined by over 84% consistent with seasonal change and ice cover.

Energy Efficiency. Applied electrical energy efficiency Q/Q increased by over 4%.

WATER PLANT PARAMETERS	Previous (Q4 2021)			Current (Q1 2022)		
	October	November	December	January	February	March
Water Treated						
Finished (million gallons), total	268.9	252.7	260.3	276.2	253.7	271.5
Finished (million gallons / day), average	8.7	8.4	8.4	8.9	9.1	8.8
Electrical Energy (WTF)						
Consumption (Megawatt-hours)	511.5	486.7	498.4	514.8	458.9	489.8
MWH / million gallons produced	1.9	1.93	1.91	1.86	1.81	1.8
Lake Turbidity (NTU), average	9.12	18.84	13.47	2.44	1.68	2.35
Water System Microbial Quality						
Total Coliform Samples	81	81	81	81	81	81
Compliance with Standard	100%	100%	100%	100%	100%	100%
Finished Water Quality						
Water Temperature (Degrees F)	61.6	42.6	33.6	33.6	35.9	37.3
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	8.9	8.9	8.9	8.9	8.9
Total Chlorine (mg/L)	1.94	2.03	2.07	2.16	2.11	2
Fluoride (mg/L)	0.69	0.72	0.7	0.69	0.7	0.68
Orthophosphate (mg/L)	0.68	0.68	0.58	0.6	0.65	0.65

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.
- In support of OCCT demonstration project, completed daily samples and orthophosphate analyses along with stagnant / flowing samples and related water quality analyses.
- Quarterly disinfection by-product rule monitoring with wholesale water customers (DBPR-2). Preparation for second quarter DBPR-2 monitoring with wholesale customers

Safety

- Maintained WTF Safety programs by completing scheduled safety inspections, fire prevention inspections, and monthly meetings. No significant incidents to report.
- Applied appropriate COVID-19 countermeasures as directed by city policy.

Operations

- Operated two UV Disinfection reactors continuously during the quarter.
- Maintained Main Pressure Zone pressure increases as recommended by Water Distribution System Master Plan.
- Completed cleaning #1 Softener.
- Completed cleaning North Sludge Pit.
- Continued cleaning #2 Softener.

Staffing & Training

- Staffing levels reduced by reassignment of one Water Plant Operator.
- Maintained normal staff schedules and work assignments.

WATER MAIN BREAK/ JOINT LEAK REPORT - MARCH

YEARLY WATER MAIN BREAK COMPARISON

<u>MARCH 21</u>	<u>MARCH 22</u>	<u>YTD 21</u>	<u>YTD 22</u>
11	15	45	60

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
E. Lawrence St.	3/3/2022		CIP	4"	Pre 1930	1/34" Crack	58 Days	2,400,000	\$14,592.00
NOTES: Break was found while testing hydrants. Water was going into the storm sewer and never surfaced. Duration went back to the beginning of the year.									
9 Arbor La.	3/3/2022	305195	DIP	8"	1978	4" X 1/16" Split	7 Days	406,275	\$2,470.15
NOTES: Break was called in by sanitation truck operator. Duration was determined by the amount of water and deterioration of the pipe.									
1119 E. Wisconsin Ave.	3/3/2022	305187	CIP	6"	1951	3" Hole	8 Hours	618,869	\$3,762.72
NOTES: Break was called in as there was water in the road. Duration is based on time of call and soil saturation.									
1901 N. Linwood Ave.	3/8/2022	305356	CIP	8"	1961	1/16" Crack	7 Days	2,701,527	\$16,425.28
NOTES: Called in by Valley Transit as there was water/ ice in the road. Break was leaking into a catch basin so it did not surface right away. Duration is based on the amount of water/ ice on scene.									

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

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
2509 N. Locust St.	3/9/2022	305424	CIP	8"	1964	1/4" Crack	12 Hours	699,562	\$4,253.34
NOTES: Break was called in by resident. Duration is based on the amount of water and mud on the roadway, along with soil saturation.									
2116 N. Birchwood Ave.	3/10/2022	305441	CIP	8"	1964	6" Split	57 Days	1,215,538	\$7,390.47
NOTES: Break was found as noise was heard on the hydrant. Duration went back to the last hydrant inspection date.									
2019 N. Nicholas St.	3/11/2022	305477	CIP	8"	1963	1/16" Hole	70 Days	67,793	\$412.18
NOTES: Break was found with the correlator. Duration is based on the soil saturation.									
1509 N. Eugene St.	3/13/2022	305501	CIP	8"	1960	1/16" Crack	4 Hours	50,119	\$304.72
NOTES: Break was called in by resident. Duration is based on the amount of water and the soil saturation.									
1702 E. Randall St.	3/17/2022	305691	CIP	8"	1949	1/8" Crack	8 Hours	311,942	\$1,896.61
NOTES: Break was called in as there was water in the road. Duration is based on time of call and soil saturation.									
601 S. Theodore St.	3/17/2022	305680	DIP	8"	1975	6" Hole	4 Hours	1,458,687	\$8,868.82
NOTES: Break was called in as there was water bubbling in road. Duration is based on time of call and the soil saturation.									

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

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
E. Newberry St. & S. Lee St.	3/19/2022	305787	CIP	12"	1960	10' X 1/4" Split & two 6" Holes	4 Hours	5,000,000	\$30,400.00
NOTES: Water Treatment Plant called this break in. Duration is based on the time the Water Plant called until it was throttled down.									
2220 E. College Ave.	3/21/2022	305843	CIP	12"	1961	1/4" Hole	80 Days	1,309,212	\$7,960.01
NOTES: Break was found with the correlator as there was a frost heave. This had been leaking a long time and never surfaced. Duration went back to the first of the year.									
E. Florida Ave. & N. Durkee St.	3/23/2022	305938	CIP	8"	1964	1/8" Crack	4 Hours	128,000	\$778.24
NOTES: Break was found as there was water leaking onto the road. Duration is based on soil saturation and water present at scene.									
743 W. Eighth St.	3/24/2022	305969	CIP	6"	1937	1/16" Crack	4 Hours	40,772	\$247.89
NOTES: Break was called in as water was in the road. Duration is based on time of call until throttled down.									
413 N. Cambridge Dr.	3/27/2022	306057	CIP	8"	1967	1/8" Crack	5 Hours	179,786	\$1,093.10
NOTES: Break was called in as water was in the road. Duration is based on time of call and soil saturation.									

In addition to the dollar value of water revenue lost, there is an average cost of \$9,000 to repair each water main break (including final restoration) and an average cost of \$630 to produce the lost water for each main break.

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