



City of Appleton

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

Meeting Agenda - Final Utilities Committee

Tuesday, March 22, 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
[22-0364](#) Approval of the March 16, 2022 Utilities Committee Meeting Minutes.

Attachments: [March 16, 2022 Utilities Committee Meeting Minutes.pdf](#)
4. **Public Hearings/Apearances**
5. **Action Items**

[22-0373](#) Award Unit F-22, Sanitary and Storm Sewer Cleaning and Televising, to Green Bay Pipe & TV, LLC in an amount not to exceed \$244,500.

Attachments: [Unit F-22.pdf](#)
6. **Information Items**

[22-0374](#) PFAS and Water Treatment Facility Source Water

[22-0396](#) Update on Private Lead Service Line Replacement Grant

[22-0365](#) Year-End Summary of Watermain Breaks

Attachments: [Year End Summary of Watermain Breaks.pdf](#)
[5 year Water Main Break Map \(002\).pdf](#)

[22-0366](#) Monthly Reports for January - February 2022:
- Water Distribution and Meter Team Monthly Report - January
- Water Distribution and Meter Team Monthly Report - February

Attachments: [Water Main Breaks - January 2022.pdf](#)
[Water Main Breaks - February 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.



City of Appleton

100 North Appleton Street
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Meeting Minutes - Final Utilities Committee

Wednesday, March 16, 2022

6:45 PM

Council Chambers, 6th Floor

Special

1. Call meeting to order

Chairperson Meltzer called the Utilities Committee Meeting to order at 6:45 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

[22-0275](#)

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

Attachments: [February 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

[22-0276](#)

Preliminary Resolution 2-P-22 for Sanitary Laterals, Storm Laterals and Storm Main be adopted and refer the matter to the Finance Committee to determine the assessment rate.

Attachments: [2-P-22 Sanitary Laterals Storm Laterals Storm Main.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

7. Adjournment

Smith moved, seconded by Doran, that the Utilities Committee Meeting be adjourned at 6:47 p.m.. Roll Call. Motion carried by the following vote:

Aye: 3 - Meltzer, Smith and Doran

Excused: 2 - Martin and Thao

CITY OF APPLETON
Department of Public Works
MEMORANDUM

TO: **Finance Committee**
 Municipal Services Committee
 Utilities Committee

SUBJECT: Award of Contract

The Department of Public Works recommends that the following described work:

Unit F-22, Sanitary and Storm Sewer Cleaning & Televising

Be awarded to:

Name: Green Bay Pipe & TV, LLC
Address: 1100 Columbia Avenue
Green Bay, WI 54303

In the amount of : _____

With a ____ **% contingency of :** _____

For a project total not to exceed : _____

**** OR ****

In an amount Not To Exceed : \$244,500.00

Budget: \$244,500.00
Estimate: \$260,000.00
Committee Date: 03/22/22
Council Date: 04/06/22

F-22 Sanitary & Storm Sewer Cleaning and Televising (#8117818)

Owner: Appleton WI, City of

Solicitor: Appleton WI, City of

02/28/2022 01:45 PM CST

Section	Title	Line Item	Item Code	Item Descr	UofM	Engineer Estimate		Green Bay Pipe & TV, LLC		Northern Pipe, Inc.		Great Lakes TV Seal, Inc.	
						Quantity	Unit Price	Extension	Unit Price	Extension	Unit Price	Extension	Unit Price
F-22	BASE BID						\$0.00		\$282,000.00		\$312,060.00		\$859,750.00
		1	1	Sanitary Se	lin.ft.	210000		\$0.39	\$81,900.00	\$0.44	\$92,400.00	\$1.30	\$273,000.00
		2	2	Sanitary Se	lin.ft.	210000		\$0.38	\$79,800.00	\$0.42	\$88,200.00	\$1.00	\$210,000.00
		3	3	Storm Sew	lin.ft.	145000		\$0.39	\$56,550.00	\$0.44	\$63,800.00	\$1.50	\$217,500.00
		4	4	Storm Sew	lin.ft.	145000		\$0.38	\$55,100.00	\$0.42	\$60,900.00	\$1.00	\$145,000.00
		5	5	6" Sanitary	lin.ft.	1000		\$0.40	\$400.00	\$0.44	\$440.00	\$1.00	\$1,000.00
		6	6	6" Sanitary	lin.ft.	1000		\$0.40	\$400.00	\$0.42	\$420.00	\$1.00	\$1,000.00
		7	7	Lateral Tele	each	50		\$125.00	\$6,250.00	\$98.00	\$4,900.00	\$195.00	\$9,750.00
		8	8	Stormcept	each	1		\$1,600.00	\$1,600.00	\$1,000.00	\$1,000.00	\$2,500.00	\$2,500.00
Base Bid Total:							\$0.00		\$282,000.00		\$312,060.00		\$859,750.00



MEMO

TO: Utilities Committee
FROM: Paula Vandehey, Director of Public Works
DATE: March 16, 2022
SUBJECT: Year-End Summary of Watermain Breaks

As requested by Alderpersons Meltzer and Smith, below is a year-end summary of our monthly watermain break report:

Number of watermain breaks = 137
Estimated water loss = 316,994,697 gallons (about 10% of all water produced)
Cost to repair main breaks = \$1,233,000 (using average of \$9,000 per break)
Cost to produce lost water = \$86,310 (using average cost of \$630 per break)

The 137 watermain breaks in 2021 was the second highest number in the past 22 years as shown on the attached chart. The average number of breaks over that same time period is 95.5. Although 137 is definitely more than industry standard, we also understand that the city could never afford to have a goal of zero main breaks in any given year.

The attached 5-Year Main Break Map shows that the breaks are scattered throughout the core area of the community. Also shown on the map is the current 5-Year Watermain Replacement Program. The map highlights 3 distinct scenarios:

Scenario #1 – Road reconstruction and watermain relay programs align with high watermain break history. Lawe Street is a good example of this scenario.

Scenario #2 – Pavement condition is driving the 5-Year Plan even though roadway has low watermain break history. Linwood Avenue is a good example of this scenario.

Scenario #3 – Roadway has significant watermain break history but is currently not in the 5-Year Plan. Capitol Drive is a good example of this scenario.

As we have discussed in the past, we all agree that in an ideal situation we would be replacing an average of approximately six (6) miles of watermain annually as recommended in AECOM's 2019 Water System Master Plan Report. However, at this time, the General Fund portion of the infrastructure upgrades cannot support the corresponding street reconstruction associated with six miles of watermain replaced annually.

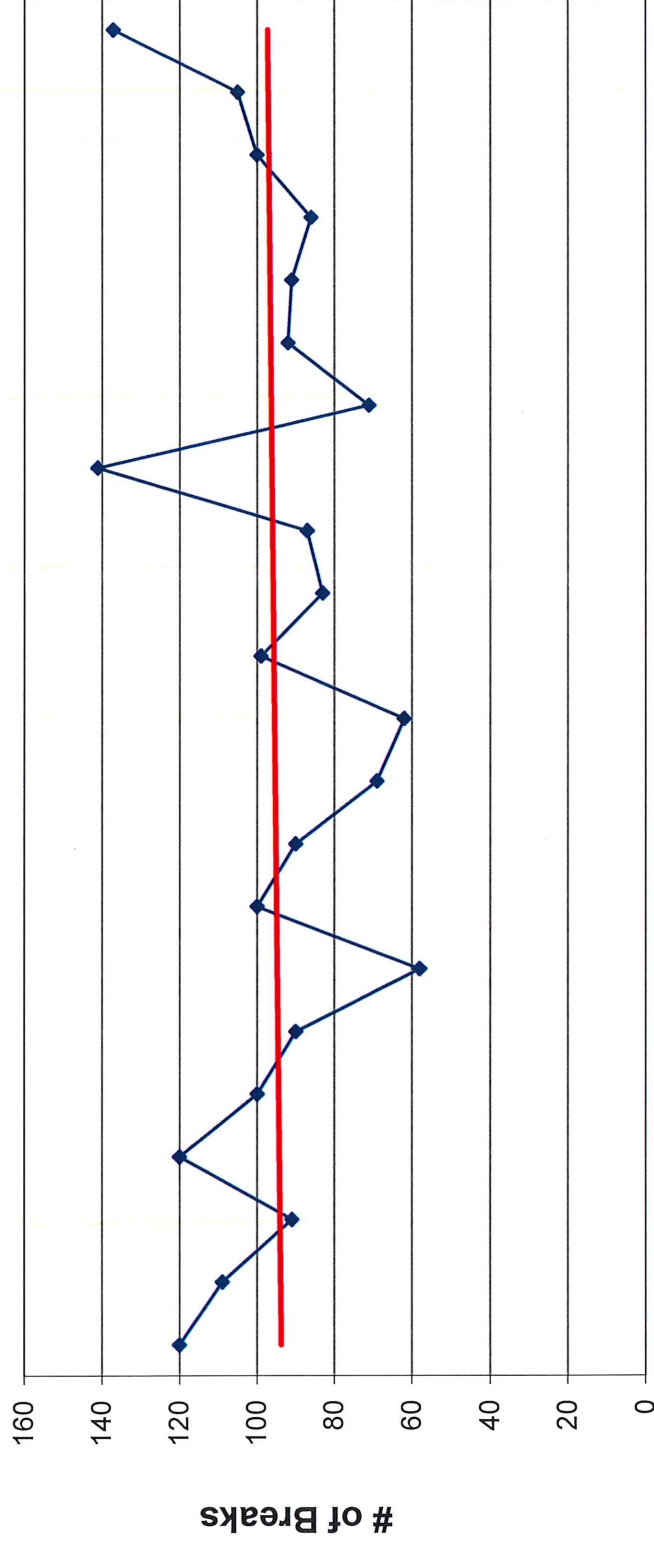
Attachments

<u>YEAR</u>	<u>BREAKS</u>
2000	120
2001	109
2002	91
2003	120
2004	100
2005	90
2006	58
2007	100
2008	90
2009	69
2010	62
2011	99
2012	83
2013	87
2014	141
2015	71
2016	92
2017	91
2018	86
2019	100
2020	105
2021	137

TOTAL = 2101

Average : 95.5

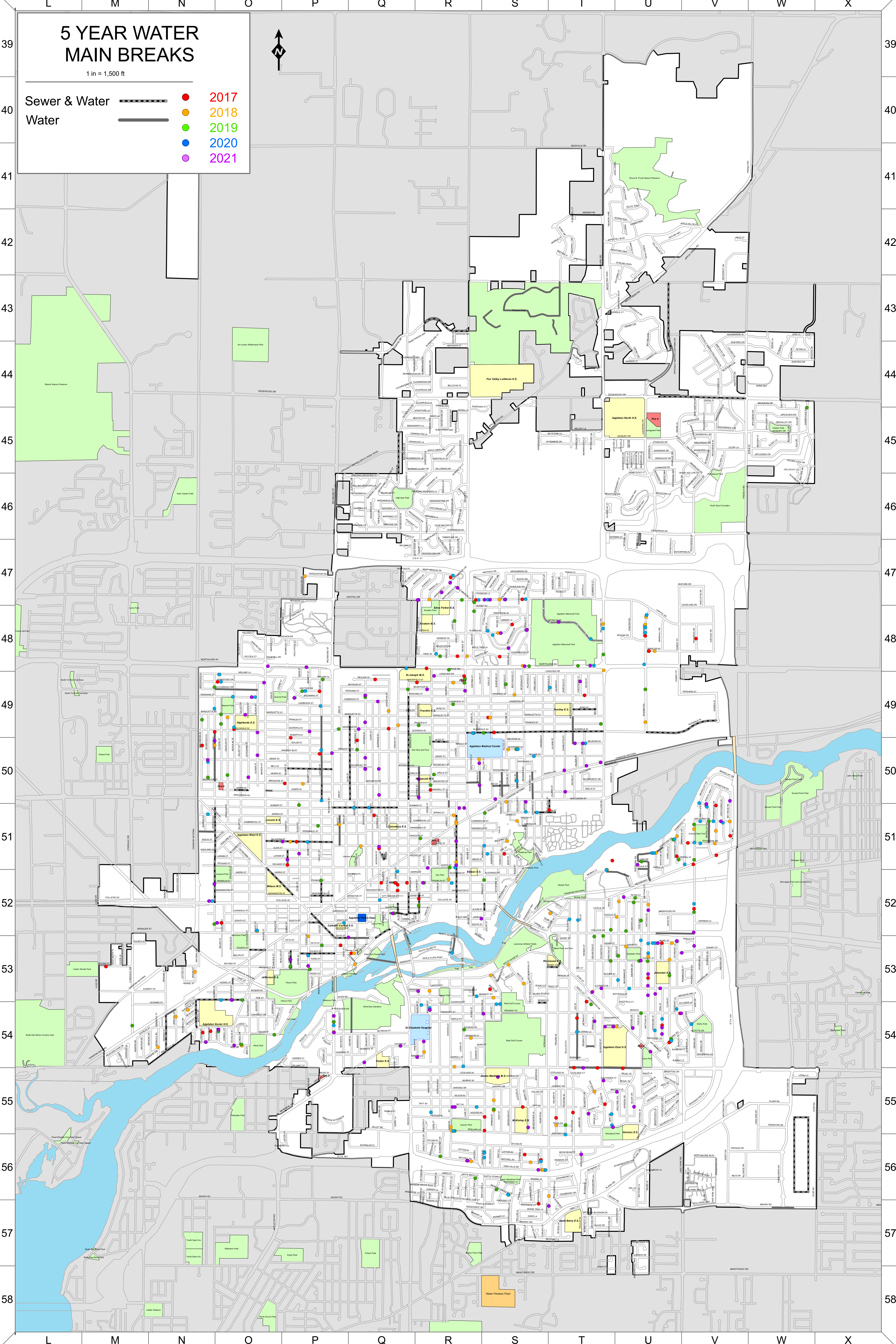
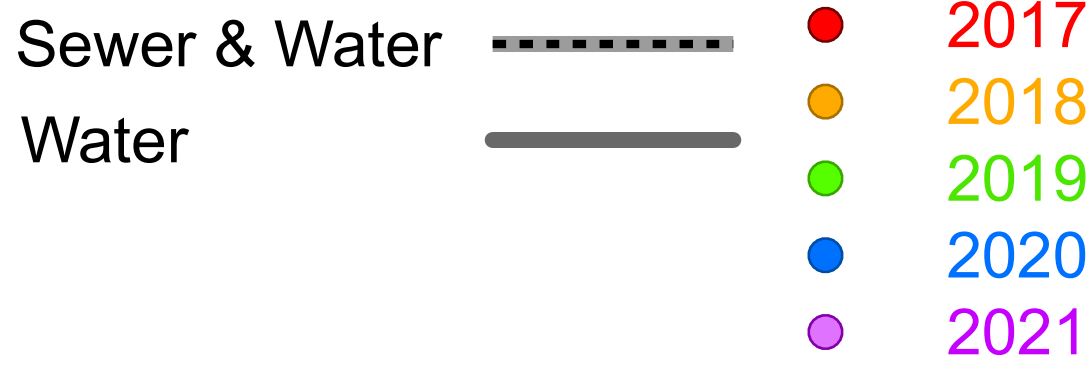
Appleton's Water Main Break History



Years 2000 - 2021

5 YEAR WATER MAIN BREAKS

1 in = 1,500 ft



WATER MAIN BREAK/ JOINT LEAK REPORT - JANUARY 2022

YEARLY WATER MAIN BREAK COMPARISON

<u>JAN 21</u>	<u>JAN 22</u>	<u>YTD 21</u>	<u>YTD 22</u>
17	23	17	23

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
1507 E. Plaza Dr.	1/3/2022	298064	CIP	8"	1964	1/4" Crack	48 Hours	2,609,379	\$15,865.02
NOTES: Our Sewer crew found the leak when they were jetting the sewer line. This never surfaced, duration just went back to the first of the year.									
1818 W. Pershing St.	1/4/2022	298100	CIP	8"	1966	3/4" Hole	7 Hours	38,257	\$232.60
NOTES: Break was found as water was in the road. Duration is based on soil saturation and time of call till turned off.									
W. Lawrence St. west of S. Walnut St.	1/5/2022	298136	CIP	8"	1931	4" Hole	5 Hours	826,431	\$5,024.70
NOTES: Break was called in as water was in the road. Duration is based on soil saturation and time of call until throttled down.									
5 River Front Ct.	1/5/2022	298153	CIP	6"	1964	1/16" Crack	5 Hours	54,653	\$332.29
NOTES: Break was called in as water was in the road. Duration is based on soil saturation and time of call until throttled down.									

**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**
N. Green Bay Rd. north of E. North St.	1/5/2022	298162	CIP	12"	1958	1/16" Crack	5 Days	3,094,343	\$18,813.61
NOTES: Break was found as water was in the road. Duration is based on soil saturation, could tell this had been running for a while before it had surfaced.									
1939 S. Adams St.	1/13/2022	298670	CIP	6"	1928	1/16" Crack	12 Hours	133,901	\$814.12
NOTES: Break was called in as water was in the road. Duration is based on soil saturation and time of call until throttled down.									
2007 Hickory Ct.	1/14/2022	298710	CIP	6"	1956	1/4" Crack	12 Hours	464,151	\$2,822.04
NOTES: Break was called in as water was in the road. Duration is based on soil saturation and time of call until throttled down.									
2701 S. Lillian Ct.	1/18/2022	298840	CIP	8"	1960	1/4" Hole	18 Days	267,978	\$1,629.31
NOTES: Break was found as there was noise on the hydrant. Duration is based on the date of the last hydrant test and soil saturation.									
158 Ramlen Ct.	1/20/2022	298921	CIP	6"	1957	4" Hole	6 Hours	972,458	\$5,912.54
NOTES: Break was called in as water was in the road. Duration is based on soil saturation and time of call until throttled down.									
1117 N. Briarcliff Dr.	1/20/2022	298951	CIP	8"	1964	1/16" Crack	24 Hours	364,672	\$2,217.21
NOTES: Break was called in my resident for water/ ice being on the road. Duration is based on time of call, soil saturation, water/ ice on road.									

**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**
831 E. McKinley St.	1/21/2022	298980	CIP	6"	1958	1/16" Crack	21 Days	5,264,079	\$32,005.60
NOTES: Break was called in by resident. Duration is based on when the resident stated they noticed the water start to appear and the soil saturation.									
2001 S. Horizon Dr.	1/21/2022	298965	DIP	8"	1979	2" Hole	8 Hours	307,518	\$1,869.71
NOTES: Break was called in as water was in the road. Duration is based on soil saturation and time of call until turned down.									
527 S. Lee St.	1/21/2022	298966	CIP	6"	1955	1/32" Crack	12 Hours	62,668	\$381.02
NOTES: Break was called in by resident for water being on the road. Duration is based on time of call, soil saturation, and the amount of water on road which was delayed on surfacing due to the frost. Water followed underground to service line.									
716 S. Fidelis St.	1/21/2022	298996	CIP	8"	1971	5" Hole	6 Hours	1,519,466	\$9,238.35
NOTES: Break was called in by APD. Duration is based on the amount of water coming up, water/ ice went down the road 2 blocks.									
1200 E. Northland Ave.	1/22/2022	298997	DIP	12"	1979	6" Hole	6 Hours	2,396,868	\$14,572.96
NOTES: Break was called in by resident. Duration is based on the volume of water that was in the ditch.									
N. Bennett St. between Wisconsin & Kamps	1/23/2022	298999	CIP	8"	1940	1/8" Crack	4 Hours	121,557	\$739.07
NOTES: Break was called in by plow driver. Duration is based on the amount of water and ice built up.									

**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**
510 W. River Rd.	1/24/2022	299060	CIP	8"	1969	1/8" Crack	8 Hours	194,492	\$1,182.51
NOTES: Break was called in my resident. Duration is based on the soil saturation and the amount of water.									
1802 E. Amelia St.	1/26/2022	299141	CIP	8"	1960	1/16" Crack	8 Hours	121,557	\$739.07
NOTES: Break was called in by a resident. Duration is based on the soil saturation, the amount of water bubbling up, and time of call until turned down.									
931 E. Florida Ave.	1/27/2022	299181	CIP	8"	1969	1/32" Crack	27 Days	5,392,953	\$32,789.15
NOTES: Break was found as there was noise on the hydrant. Duration is based on the date of the last hydrant test and soil saturation.									
2003 E. Lourdes Dr.	1/28/2022	299201	DIP	12"	1975	4" Hole	6 Hours	972,458	\$5,912.54
NOTES: Break was called in by resident. Duration is based on the amount of water and mud on the road.									
635 W. Atlantic St.	1/28/2022	299387	CIP	4"	Pre 1930	4" Hole	5 Hours	742,727	\$4,515.78
NOTES: Break was called in by a resident. Duration is based on the amount of water, mud, ice on the road. Along with the time of call till it was turned down.									
W. Franklin St. & N. Locust St.	1/29/2022	299388	CIP	6"	1948	6" Hole	5 Hours	1,314,843	\$7,994.25
NOTES: Break was called in by resident. Duration is based on the time of call until it was turned down. Also based off the mount of water and ice on the road.									

**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**
N. Oneida St. & W. Marquette St.	1/30/2022	299389	CIP	8"	1945	25" X 3/4" Split	6 Hours	1,088,237	\$6,616.48
NOTES:	Break was called in by resident. Duration is based on the amount of water, mud, and ice on the road. Along with the time of call till it was turned down.								

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 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.

WATER MAIN BREAK/ JOINT LEAK REPORT - FEBRUARY 2022

YEARLY WATER MAIN BREAK COMPARISON

<u>FEB 21</u>	<u>FEB 22</u>	<u>YTD 21</u>	<u>YTD 22</u>
17	22	34	45

LOCATION	BREAK DATE	WORK ORDER	TYPE OF PIPE	SIZE	YEAR	BREAK	ESTIMATED DURATION	ESTIMATED WATER LOSS IN GALLONS	DOLLAR VALUE OF WATER REVENUE LOSS**
925 E. Capitol Dr.	2/1/2022	299671	DIP	12"	1967	1/4" Hole	32 Days	523,685	\$3,184.00
NOTES: Break was found as the road was heaved up and used correlator to check. The break never surfaced. Duration is based on how heaved the road was and the amount of pitting on the pipe.									
600 E. Mitchell Ave.	2/3/2022	299845	DIP	8"	1978	4" X 1/16" Split	34 Days	1,765,006	\$10,731.24
NOTES: Break was found as there was a lot of ice built up on the road. Duration is based on soil saturation and ice/ water.									
3315 N. Durkee St.	2/3/2022	299846	DIP	12"	1978	1/4" Hole	34 Days	506,181	\$3,077.58
NOTES: Break was called in, there was ice built up on the road. Duration is based on the time of call and soil saturation until turned down.									
3201 E. Calumet St.	2/3/2022	299830	PVC	6"	1993	1/16" Crack	24 Hours	273,504	\$1,662.90
NOTES: Break was found as there was a lot of ice built up on the road. Duration is based on soil saturation and ice/ water.									
2209 S. Fountain Ave.	2/3/2022	299844	Cast.	6"	1960	1/32" Crack	34 Days	4,227,306	\$25,702.02
NOTES: Break was found as noise was heard on the hydrant. This never surfaced and was entering into the sewer. Duration went back to the beginning of the year.									

**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**
42 Woodmere Ct.	2/4/2022	299989	CIP	8"	1962	1/8" Crack	24 Hours	825,158	\$5,016.96
NOTES: Break was called in as there was water on the road. Duration is based on the time of call and the soil saturation.									
1719 Schaefer Cir.	2/4/2022	299957	DIP	8"	1980	5" Hole	6 Hours	1,608,052	\$9,776.96
NOTES: Break was called in as there was water on the road. Duration is based on the time of call, the soil saturation, and amount of water.									
1619 E. Pershing St.	2/5/2022	303381	CIP	8"	1960	1/16" Crack	48 Hours	668,455	\$4,064.21
NOTES: Break was called in my resident. Duration is based on the amount of water/ ice on the road.									
1411 N. Briarcliff Dr.	2/6/2022	303382	CIP	8"	1964	1/4" Crack	6 Hours	364,672	\$2,217.21
NOTES: Break was called in by resident. Duration is based on the time of call and the amount of water/ ice on road.									
719 E. Taft Ave.	2/10/2022	303848	CIP	8"	1963	1/2" Hole & 1" Hole	41 Days	2,302,454	\$13,998.92
NOTES: Joint leak found as there was a big frost heave in the road and checked with correlator. Duration went back to the original break due to the size of the heave.									
W. Hickory Ct. & S. Bartell Dr.	2/10/2022	303873	CIP	6"	1956	1/8" Crack	6 Hours	116,038	\$705.51
NOTES: Break was called in my resident. Duration is based on the amount of water/ ice on the road.									
541 E. Calumet St.	2/10/2022	303845	CIP	6"	1920	1/8" Crack w/ 1" Hole	41 Days	21,974,190	\$133,603.08
NOTES: Break was found as there was noise on the hydrant. Water never surfaced as break was going directly into the storm drain.									

**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**
517 E. Pacific St.	2/12/2022	303918	CIP	8"	1968	1/8" Crack	7 Days	4,789,295	\$29,118.91
NOTES: Break was called in by resident. Duration is based on the amount of ice/ water on the road, that there was no frost when there should have been, and the underground trench.									
W. Eighth St. & S. Locust St.	2/12/2022	303917	CIP	6"	1937	1/4" Crack	7 Days	6,849,620	\$41,645.69
NOTES: Break was found as there was a sinkhole in the road. Duration is based on the amount of water running into the storm sewer and the size of the sinkhole.									
W. Weiland Ln. & N. Summit St.	2/14/2022	303964	DIP	8"	1969	1/4" Crack	6 Hours	334,227	\$2,032.10
NOTES: Break was called in by resident. Duration is based on the amount of water, mud, and ice on the road.									
2109 N. Oneida St.	2/16/2022	304033	CIP	8"	1940-1949	1/4" Crack	2 Hours	121,557	\$739.07
NOTES: Break was called in by a resident. Duration is based on soil saturation and time of call until it was throttled down.									
1036 S. Theodore St.	2/16/2022	303993	CIP	8"	1963	16" X 1/32" Split	75 Days	8,166,857	\$49,654.49
NOTES: Break was found as there was ice built up on the road and noise could be heard on the hydrant. Duration is based on the ice built up, soil erosion. This break didn't surface, was leaking into the sewer for a long time.									
708 N. Mason St.	2/17/2022	304126	CIP	8"	1928	1/2" Hole	49 Days	2,226,751	\$13,538.65
NOTES: Break was found as water was bubbling out of the valve box, ice was building up on the road, and noise could be heard on the hydrant. Duration is based on the amount of water and the deterioration of the old clamp.									
2633 S. East St.	2/18/2022	304169	CIP	8"	1966	1/8" Crack	8 Hours	230,639	\$1,402.29
NOTES: Break was called in by resident as water was bubbling up. Duration is based on the time of the 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**
1223 S. Theodore St.	2/18/2022	304168	DIP	8"	1975	2.5" Hole	6 Hours	356,346	\$2,166.58
NOTES: Break was called in by resident as water was bubbling up. Duration is based on the time of the call and the soil saturation.									
1137 E. Park Ridge Av.	2/20/2022	304380	CIP	8"	1969	4" Hole	3 Hours	600,000	\$3,648.00
NOTES: Break was called in by resident. Duration is based on the time of call until turned down.									
413 N. Cambridge Dr.	2/23/2022	304717	CIP	8"	1697	1/16" Hole	54 Days	50,246	\$305.50
NOTES: Break was found as noise was heard on the hydrant. Duration went back to the first of the year.									

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 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.