The June 21, 2016 Final Decision approving of the Application by the City of Waukesha, Wisconsin for a Diversion of Great Lakes Water from Lake Michigan and an Exception to Allow the Diversion sets forth various conditions of the approval.

Condition J of the Decision requires an annual report be filed that, "documents the daily, monthly and annual amounts of water diverted and returned to the Lake Michigan watershed over the previous calendar year". No water has yet been diverted. It is anticipated that the diversion will commence by September 2023. Thus, in the absence of a diversion, no report is yet required, and there is no diversion of water to report. Although this report is not required the City of Waukesha Water Utility is providing the following information as a matter of background for the calendar year 2021.

Requirement (a):
The City shall summarize that the diversion was implemented consistent with the requirements of the Council Decision.

Response:
The approved diversion has not commenced to operate during the 2021 calendar year. The City of Waukesha Water Utility continues to construct the infrastructure necessary to deliver water from Lake Michigan which will be returned to the Great Lakes Basin via the Root River in Franklin, Wisconsin.

The anticipated commencement date is before September 2023.

Requirement (b):
The total amount of water purchased daily, monthly, and annually from the City of Milwaukee, including the location(s) of the water meter used to determine the amount of water purchased.

Response:
There was no water purchased from the City of Milwaukee in 2021.

Requirement (c):
The total amount of water sold monthly, to each category of customer within the approved diversion area.

Response:
The following table illustrates the gallons sold, by month, in 2021 from water supplied by existing Waukesha Utiltiy wells:

Water Sold:	**2021**	**Water Sold (gallons)**					
Customer Class	**# of Customers**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
RESIDENTIAL	16,670	54,162,200	74,438,500	100,786,300	67,315,700	61,693,000	64,074,600
RES-2 FAMILY	1,288	8,498,900	8,832,900	15,806,700	10,380,100	8,672,900	8,433,200
RES-3 FAMILY	76	560,900	329,000	1,156,700	734,800	566,300	587,600
MULTI-FAMILY	950	29,000,800	24,497,500	55,174,800	34,912,900	30,236,100	29,597,600
COMMERCIAL -REG	1,272	20,980,400	17,018,200	35,608,800	28,468,900	24,491,600	26,134,300
INDUSTRIAL	146	9,624,000	9,817,800	11,256,800	11,181,400	11,972,300	12,344,000
PUBLIC	118	4,060,600	3,689,800	4,349,700	4,045,500	4,545,400	6,720,800
IRRIGATION	142	122,200	4,000	6,400	19,800	504,800	1,117,700
TOTAL	**20,662**	**127,010,000**	**138,627,700**	**224,146,200**	**157,059,100**	**142,682,400**	**149,009,800**

	Water Sold (gallons)						
Customer Class	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
RESIDENTIAL	70,099,100	73,099,800	67,950,400	66,236,400	61,041,700	55,221,400	**816,119,100**
RES-2 FAMILY	8,637,200	8,954,800	8,778,200	8,657,500	8,357,500	7,573,400	**111,583,300**
RES-3 FAMILY	600,300	652,200	555,800	541,000	524,900	488,800	**7,298,300**
MULTI-FAMILY	29,391,400	31,108,200	31,053,700	33,187,100	30,568,800	28,180,200	**386,909,100**
COMMERCIAL -REG	28,966,000	29,791,400	30,261,700	31,759,800	24,996,300	21,012,300	**319,489,700**
INDUSTRIAL	12,206,900	13,544,800	13,200,700	12,643,100	10,497,100	9,519,000	**137,807,900**
PUBLIC	6,598,600	7,487,300	6,760,000	5,914,250	4,339,900	3,728,600	**62,240,450**
IRRIGATION	2,193,300	2,981,000	2,459,000	1,588,300	494,200	47,500	**11,538,200**
TOTAL	**158,692,800**	**167,619,500**	**161,019,500**	**160,527,450**	**140,820,400**	**125,771,200**	**1,852,986,050**

Requirement (d):

The daily, monthly, and annual volume of treated wastewater discharge returned to the Root River and the daily, monthly, and annual volume of treated wastewater discharge returned to the Fox River.

Response:

No diversion occurred in 2021 so no water was returned to the Root River. The following table illustrates the gallons of wastewater sent to the City of Waukesha Clean Water Plant, by month, in 2021 which was then discharged to the Fox River:

Sewerage Flow to the City of Waukesha Clean Water Plant (gallons)

Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**
196,639,000	176,762,000	242,203,000	229,293,000	227,991,000	208,939,000

Jul	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
210,405,000	238,168,000	191,003,000	196,575,000	179,002,000	183,688,000	**2,480,668,000**

.

Requirement (e):

The total consumptive use as defined in Wis. Stat. §281.346(1)(e).

Response:

In 2021, Waukesha Water Utility had thirteen (13) ratepayers that had measured consumptive use, or water used during production. The total water usage associated with production in 2021 was 39,500,600 gallons.

Requirement (f):

A summary of the impact of the implemented Conservation and Efficiency Measures required under Wis. Admin. Code §§ NR 852.04 and NR 852.05, including quantifiable impacts to water use intensity, as defined in Wis. Admin. Code § NR 852.03(29). Water use intensity metric calculation methods as specified by the DNR.

Response:

Please find the 2021 Conservation Report, submitted to the Public Service Commission of Wisconsin, as Attachment A.

Additionally, the 2021 intensity metric calculations, as specified by the DNR, is shown below:

Calculate Residential Equivalent Units

Meter size	Number of Meters	REU Ratio*	REU
5/8	17322	1	17322
3/4	1683	1	1683
1	911	2.5	2277.5
1 1/4	0	3.7	0
1 1/2	352	5	1760
2	339	8	2712
2 1/2	0	12.5	0
3	45	15	675
4	13	25	325
6	9	50	450
8	0	80	0
10	0	122	0
12	0	160	0
Total	20674		27204.5

Calculation Average Day Water Use per REU

Total Water Sales	1,852,986,050	gallons
Average Day Water Use	5,076,674	gallons/day
Water Use/REU	186.6115573	gpd/REU

* From Wisconsin Public Service Commission

Calculate Average Residential Per Capita Use

Using the total usage from Requirement (c) of 1,852,986,050 and dividing it by the City of Waukesha's estimated population of 72,299 equals 25,629 gallons Waukesha's Average Residential Per Capita Water Use.

Calculate Maximum Day to Average Day

	Total Annual	Average Day	
Annual Water Withdrawal	1,923,146,000	5,268,893	gallons/day
Maximum Day Withdrawal		8,353,000	
Maximum to Average Day Ratio		1.585342454	

Requirement (g):
A description of any additional Conservation and Efficiency Measures implemented.

Response:
Starting in 2006, the City of Waukesha Water Utility ("Utility") implemented a variety of conservation programs. Additionally, the Utility approved a conservation plan in 2012. The program consists of incentive programs, such as toilet and shower head rebates for single and multifamily properties, and grants for innovative site-specific water saving measures.

Through 2021, the program has driven a reduction in water use of 0.6M gallons per day from 2006. Additionally, the Utility expects the average to meet or exceed the conservation plan's goal of 0.8M gallons of water saved per day in 2050.

Requirement (h):
A statement verifying that no customers outside of the diversion area were sold Lake Michigan water.

Response:
The City of Waukesha Water Utility certifies no Lake Michigan water was diverted and therefore no customers inside or outside of the approved diversion area were sold Lake Michigan water.

Requirement (i):
A spatially explicit description of the properties served by the City's water utility, in the manner prescribed by the DNR.

Response:
Please see Attachment B.

Requirement (j):
A report of any City wells filled and sealed or changed to emergency use status in the past year. A description of deep aquifer groundwater wells maintained for emergency use, as allowed under Wis. Admin. Code § NR 810.22, and use of these wells in the previous year.

Response:
The status of City wells will change after the diversion commences, but that has not yet occurred. Please see Attachment C for the current status of the City wells.

Requirement (k):
A summary of the implementation of the pharmaceutical and personal care products recycling and reduction program in the past year.

Response:

The City of Waukesha submitted the City of Waukesha Pharmaceutical and Personal Care Products Reduction Program to the Wisconsin Department of Natural Resources for approval. See Attachment D.

Requirement (l):
For at least 10 years after the date the diversion begins, the City shall annually report the results of Root River monitoring to DNR. The report shall include a summary of the monitoring results and a summary of any impacts to the Root River from the City's wastewater discharge.

Response:
The diversion has not yet begun and no return flow to the Root River has commenced, thus there are no monitoring results to report. However, the City of Waukesha submitted City of Waukesha Post-Return Flow Root River Monitoring Program to the Wisconsin Department of Natural Resources for approval. See Attachment E.

Requirement (m):
A statement of compliance with all applicable federal and state permits and approvals.

Response:
The City of Waukesha has complied with all applicable federal and state approvals to date.

PUBLIC SERVICE COMMISSION OF WISCONSIN
REPORT ON WATER CONSERVATION PROGRAMS

Utility Name:	Waukesha Water Utility - 6240
Report Date:	04/01/2022
Report Period:	01/01/2021 – 12/31/2021
Report Frequency:	Annual
Billing Frequency:	Quarterly
Person Submitting Report:	Joseph Ciurro

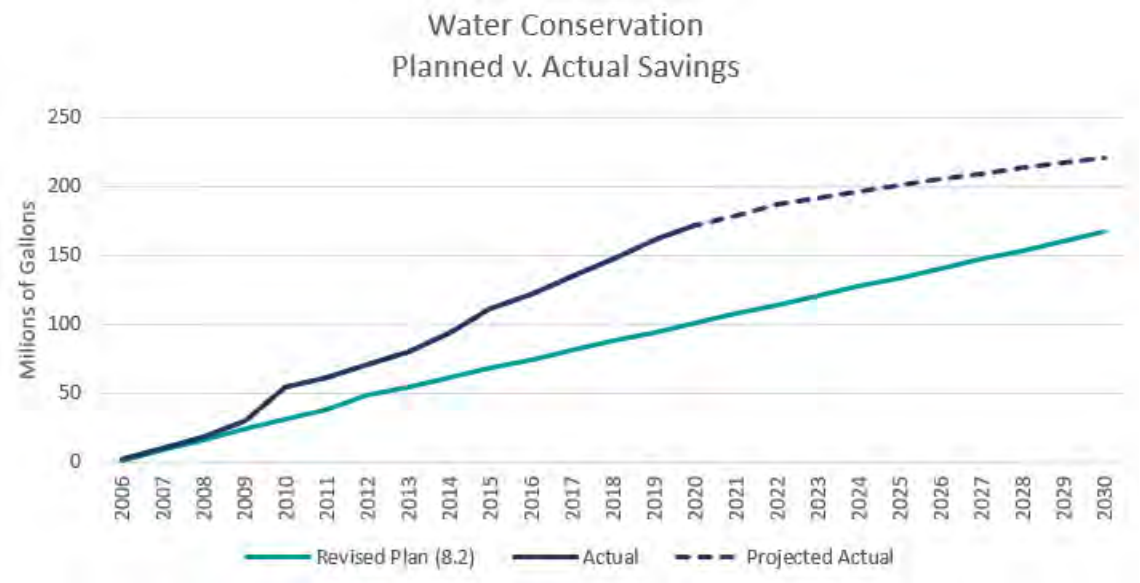
Waukesha Water Utility is submitting this report to the Public Service Commission, as required by PSC 185.97. This report addresses each of the points requested by the Commission, including the following information.

I. EXECUTIVE SUMMARY

Water conservation is important in the City of Waukesha. Since 2006, the Utility has implemented a variety of conservation programs, and the City's conservation efforts became more focused with the passage of NR 852.

This report shows that the Utility is addressing all the requirements of NR 852; and that by addressing the requirements, the City's consumption has steadily decreased. Since its passage in 2010, the City's annual pumpage and average day pumpage have decreased by 21%.

Waukesha is exceeding its conservation goals. The 2012 Conservation Plan projected a cumulative savings of 107.5 million gallons by 2021. As shown in the graph below, the Utility is ahead of it's conservation goals. If Waukesha stays on track, the Utility will exceed savings of 0.8 million gallons per day by 2050.



Finally, because the Utility uses the criterion recommended in the 2012 Plan (cost effectiveness) to guide it's efforts, the Utility achieves its goals by spending only a modest amount.

II. ANNUAL BUDGET AND EXPENDITURES

Per Docket 6240-WR-107 the PSC determined that a "reasonable level of conservation costs recoverable in rates for the test year (2012) is $62,271." Subsequently, with Docket 6240-WR-110, the PSC agreed that the same level of costs was reasonable with a revised test year of 2021.

The actual costs since 2017 are as follows:

	Actual				
	2021	2020	2019	2018	2017
Revenue					
Rates	$ 62,271	$ 62,271	$ 62,271	$ 62,271	$ 62,271
Sewer Reimbursement	30,000	30,000	30,000	30,000	30,000
	92,271	92,271	92,271	92,271	92,271
Expenses					
Program Administration	11,144	8,829	8,630	8,954	17,873
Customer Outreach and Education	6,354	8,538	14,875	15,102	22,030
Other Program Costs	2,031	2,497	2,549	2,951	1,544
Leak Surveys	-	-	-	11,450	15,197
Toilet Rebates	28,995	34,550	46,382	17,589	32,824
Grants & Incentives	580	330	190	15,428	2,819
	49,104	54,744	72,626	71,474	92,287
Excess(Deficit)	$ 43,167	$ 37,527	$ 19,645	$ 20,797	$ (16)

Program revenue remained consistent from 2020 to 2021. The current rate order (Docket #6240-WR-110) allows for $62,271 in conservation costs to be recoverable by water rates, with $30,000 of funding charged to the City's Sewer Department.

In 2021, costs associated with this program were again affected by the worldwide COVID-19 pandemic as it limited resources for residents, property owners and businesses to invest in water-conserving fixtures and equipment. That being said, there was still $19,529 spent on program operating expenses and $29,575 in incentives that have a direct effect on water conservation measurements. The program generated an excess of $43,167 in 2021; the average excess generated since 2012 has increased from $14,137 per year in 2020 to $17,040 per year in 2021.

The most significant expense changes between 2021 and 2020 includes the decrease in staff time towards customer outreach and education and a decrease in toilet rebates (297 vs. 354). The program still focused its efforts on reaching out to large multi-family customers; there were just fewer applications from those owners to replace toilets in 2021. The Utility plans to continue its efforts of replacing inefficient toilets and promoting its business conservation incentive program in 2022. Additionally, staff will begin to work on its conservation plan update in 2022.

III. INCENTIVE PROGRAMS

The Utility has four active incentive programs:

1. Toilet Rebate Program
2. Shower Head Rebate Program
3. Rain Barrel Rebate Program
4. Grants for Innovative Site Specific Water Savings Measures

WaterSense®

1. Toilet Rebate Program

Waukesha Water Utility's High-Efficiency, 1.28 gpf (gallons per flush), WaterSense toilet rebate program has been in effect since October 2008. From October 2008 to July 2012, the program offered a $25 rebate. In 2012, the Utility increased the rebate to $100, although less is paid if the actual cost to the customer is less.

In 2021, the Utility continued to offer the residential toilet and showerhead rebates. However, as we did in previous years, we continued to focus on large multi-families.

The Utility pre-inspected toilets for 3 large multi-families, to make sure that the toilets qualified for a rebate. The 3 large multi-families were Willow Park Apartments, The Meadows Apartments, and Refermat, LLC.

Unfortunately, Willow Park Apartments (for low-income seniors and disabled) notified the Utility, about a month after the Utility pre-inspected 82 toilets, that due to other priorities, they would not be able to replaced their toilets in 2021. The Utility will follow up with Willow Park in 2022.

By the end of 2021, the Utility processed a total of 297 toilet rebates. This included 75 residential toilets, 7 residential 2 family, 3 commercial toilets, 1 industrial, and 211 toilets from large multi-families.

Detailed information pertaining to the large multi-family toilet rebates are shown on the following pages.

The Meadows Apartments changed out 200 toilets – most of the toilets dated back to 1972, but a few were dated 1991.


Refermat Enterprises, LLC., a 10-unit multi-family building, only had 3 toilets that qualified for a rebate. These toilets dated back to 1981 & 1987. In addition, Refermat Enterprises owned other properties and 3 more toilets qualified for a rebate. These other toilets dated back to 1970, 1971, and 1976.

The cover letters for the large multi-family toilet rebates are shown on the next 2 pages.

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

115 DELAFIELD STREET
WAUKESHA, WI 53188-3615

Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail: contactus@waukesha-water.com

August 19, 2021

The Meadows
Attn: Lori Gabay
2400 Springdale Road
Waukesha, WI 53186

Re: Toilet Rebates for The Meadows Apartments

To Whom It May Concern:

Waukesha Water Utility would like to thank you for participating in the toilet rebate program. Your rebate application has been processed for 200 WaterSense toilets at $96.75 per toilet. Please find enclosed a check for $19,350.00.

Thank you again for working with the Utility and changing out the water wasting toilets. We appreciate your commitment to conserve water.

Sincerely,

WAUKESHA WATER UTILITY

Joseph Ciurro
Administrative Services Manager

mka

Enclosure: Check No. 46285

cc: Jim Clemmer

Cover Letter for The Meadows' Apartments Toilet Rebates

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

115 DELAFIELD STREET
WAUKESHA, WI 53188-3615

Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail: contactus@waukesha-water.com

December 17, 2021

Refermat Enterprises, LLC
Attn: Tom Refermat
P. O. Box 751
Brice, OH 43109

Waukesha, WI 53186

Re: Toilet Rebates for 525 Dunbar large multi-family and for the duplexes at 520 Broadway & 300 W Main Street

To Whom It May Concern:

Waukesha Water Utility would like to thank you for participating in the toilet rebate program. Your rebate application has been processed for 6 WaterSense toilets at $100 per toilet. Please find enclosed a check for $600.

These rebates are for the following properties: 3 rebates for the large multi-family, located at 525 Dunbar, 2 rebates for 520 Broadway, and 1 rebate for 300 W Main Street.

Thank you again for working with the Utility and changing out the water wasting toilets. We appreciate your commitment to conserve water.

Sincerely,

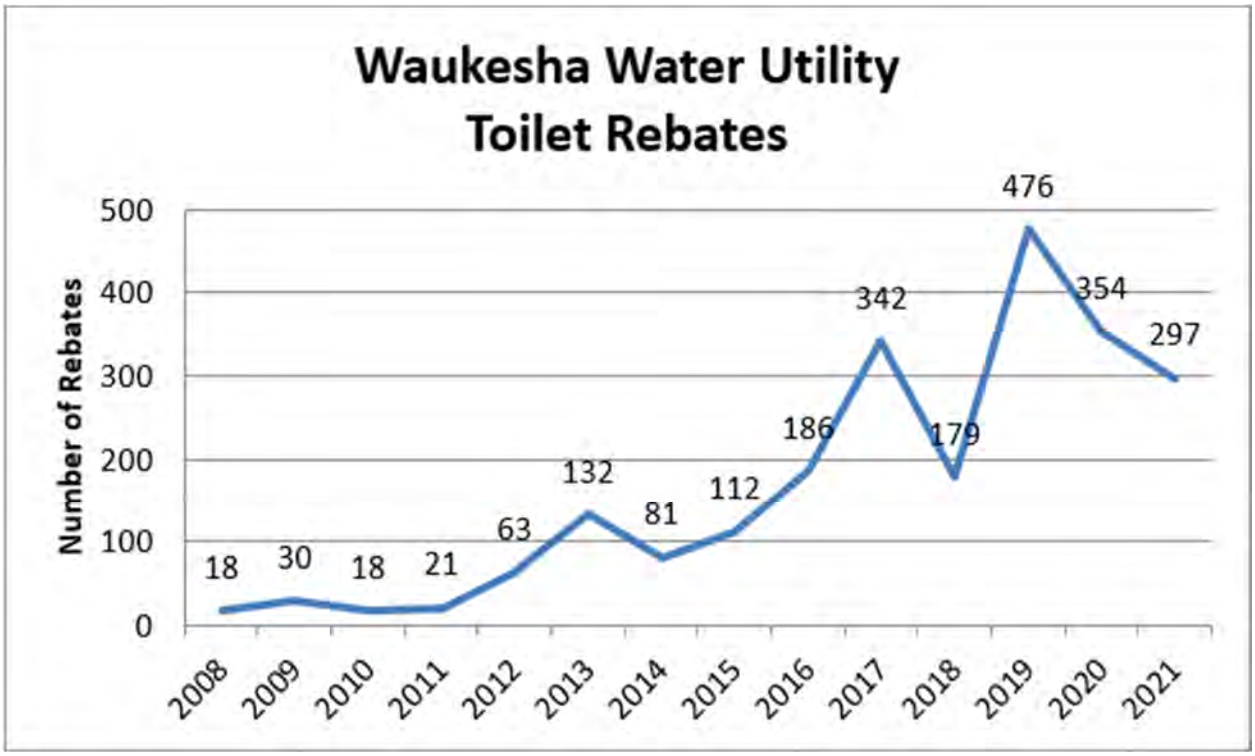
WAUKESHA WATER UTILITY

Mary Adelmeyer

Mary Adelmeyer
Customer Relations Coordinator

mka

Cover Letter for Refermat Enterprises, LLC Toilet Rebates



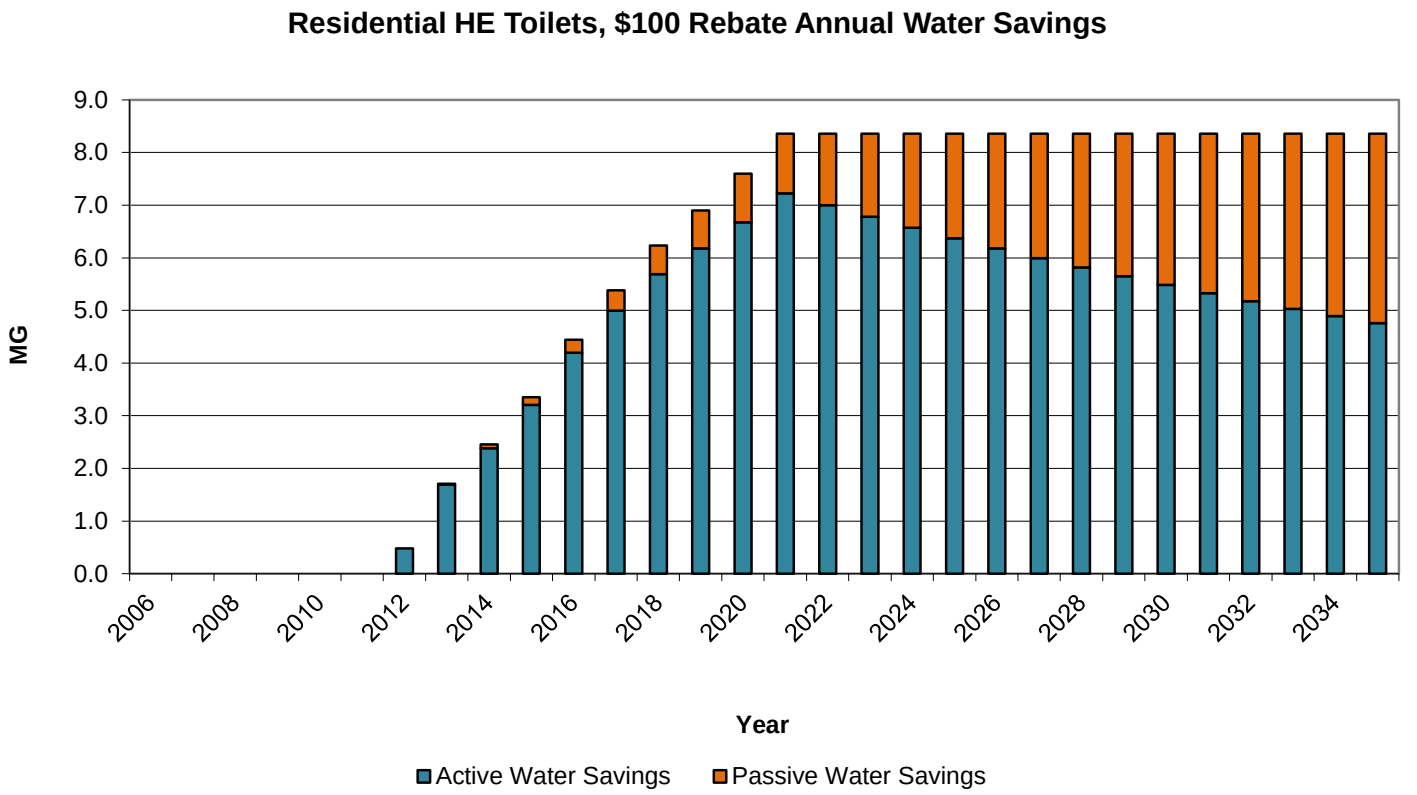
Historically, the following rebates have been awarded:

Using the Alliance for Water Efficiency (AWE) Conservation Tracking Tool, the annual cost effectiveness of the program is demonstrated below.

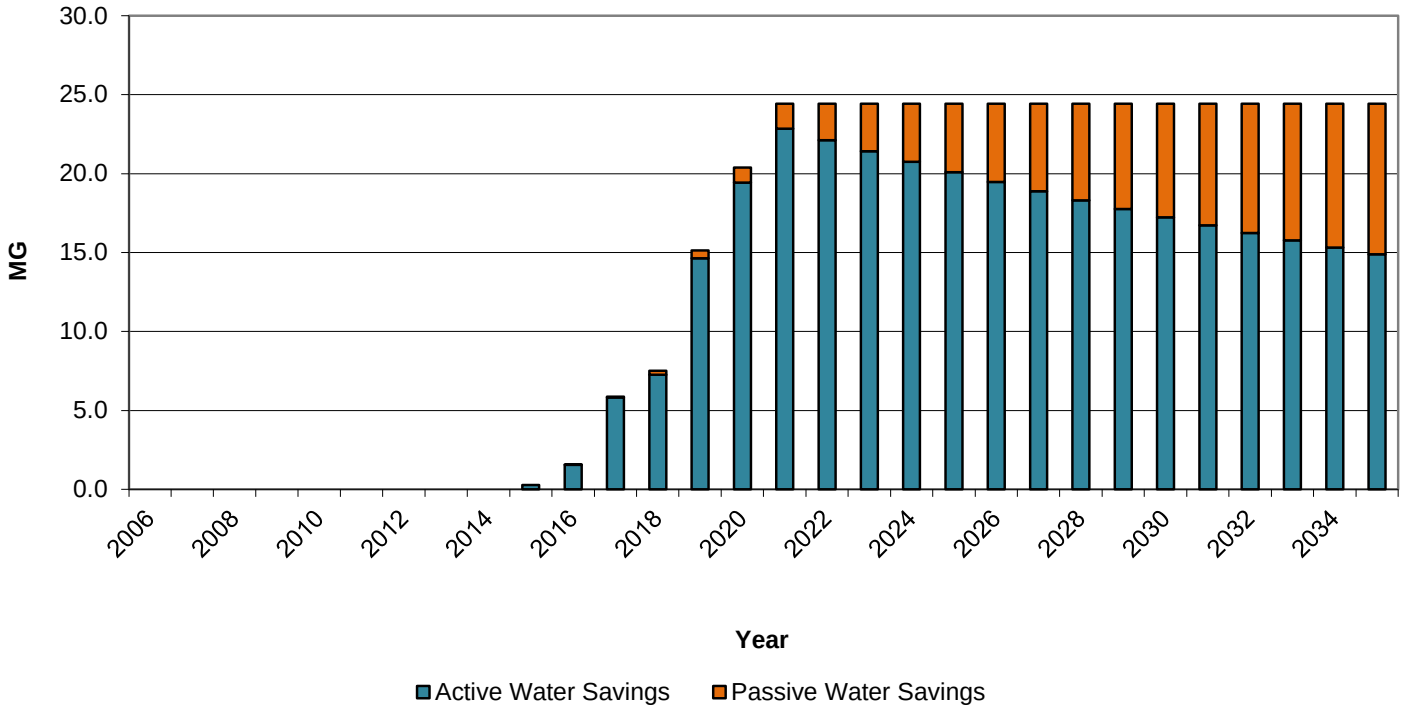
Class	Activity Name	Unit Cost ($/MG)	PV Cost	Unit Benefit ($/MG)	PV Benefit	Avoided Supply	Avoided Wastewater	B/C Ratio
Residential	Residential HE Toilets, $25 Rebate	412.18	8,729.64	1,662.09	35,201.33	19,596.13	15,605.20	4.03
Residential	Residential HE Toilets, $100 Rebate	661.00	129,946.71	1,921.13	377,679.10	210,557.84	167,121.26	2.91
Commercial	Commercial HE Toilet, Large MF $100 Reb	332.55	184,242.96	2,034.30	1,127,053.23	628,704.85	498,348.38	6.12
Industrial	CII Tank-Type HE Toilet, $50 Rebate (Indu	147.91	475.55	1,948.21	6,263.97	3,492.59	2,771.37	13.17

In 2021, $100 toilet rebates for single-family residences and $100 rebates for commercial\multifamily buildings were issued. The projected water savings through 2035, for those two rebates, is demonstrated by the graphs on the next page. Projected water savings for past program incentives such as a $25 residential toilet rebate or $50 industrial toilet rebates can be found in past annual reports or provided upon request.

The first graph relates to water saved by the $100 residential rebates.



The second graph relates to water saved by the $100 commercial/multifamily toilet rebates.



WaterSense®

2. Shower Head Rebate Program

In late 2016, the Utility implemented a shower head rebate program. Customers who replace their 1992 or older shower head with a high-efficiency WaterSense shower head would be eligible for a $25 rebate. In 2021, there were 12 shower head rebates (9 were for residential, 1 was for a two family, and 2 were for a large multi-family).

The residential toilet & showerhead rebate application, along with the large multi-family toilet rebate application, is shown on the following four pages. The advertisements for the rebate programs are shown in the public Education section.

Waukesha Water Utility
P. O. Box 1648
Waukesha, WI 53187-1648
www.waukesha-water.com
Phone: 262-409-4423
Fax: 262-521-5265

RESIDENTIAL – SINGLE FAMILY, DUPLEX, & TRI-PLEX HIGH-EFFICIENCY TOILET & SHOWER HEAD REBATES

$100 Toilet Rebate	Replace a **1993 or Older** (3.5 gpf or more - gallon per flush) toilet with a **WaterSense** High-Efficiency **1.28 gpf** toilet and receive up to a $100 rebate. (Residential customers can save 9,000 – 11,000 gals. of water/year, depending on family size.)
$25 Shower Head Rebate	Replace a **1992 or Older** shower head with a **WaterSense** model shower head and receive up to a $25 rebate. (Residential customers can save approximately 2,900 gals. of water/year, and approximately 300 kwh of electricity annually.)

Customer Eligibility/Program Rules:

If replacing more than 5 toilets, please see Large Multi-Family/Commercial Rebate Application.

1. Rebates are available on first-come, first-served basis until funds are exhausted.
2. **Property where toilet/showerhead is installed is a customer of Waukesha Water Utility.**
3. **High efficiency toilets must replace toilets installed in 1993 or prior.**
4. Shower heads must replace shower heads installed in 1992 or prior.
5. New construction is not eligible.
6. **New toilet/showerhead must have the WaterSense logo (as shown on top of this page).**
7. Applicant must be the owner of the property listed on the rebate application.
8. **An original, unaltered, dated sales receipt listing the make and model numbers, MUST accompany the rebate application.**
9. **A picture showing the YEAR of the original toilet & a picture of the installed toilet is required and needs to be attached to the application in order to receive the rebate.**
10. Applicant agrees and understands that Waukesha Water Utility or its representatives reserve the right to inspect the installation before or after the rebate credit is mailed out.
11. The Utility will withhold the rebate until all conditions are met.
12. Rebates are not available for the costs of installation.
13. **Old toilets/showerheads cannot be reused.**
14. Submit the application materials to the Waukesha Water Utility (address listed above).

Updated Toilet & Shower Head Rebate Application Front Side

Waukesha Water Utility
P.O. Box 1648
Waukesha, WI 53187-1648
Phone: (262) 409-4423 Fax: (262) 521-5265

TOILET & SHOWER HEAD REBATE FORM

Please Print & Read All Program Rules, on the Other Side of This Form, Prior to Submitting

NAME:_____ Owner □ Occupant □ Account #:_____
SERVICE ADDRESS (Where toilet/showerhead installed):_____
MAIL REBATE TO THIS ADDRESS: _____
CITY: _____ STATE:_____ ZIP:_____
PHONE (Day): _____ PHONE (Evening):_____
EMAIL:_____ Preferred Method of Contact: □ Email □ Phone
How did you hear about this program?

Number of Toilets at this Address:	Number of Toilets Currently Replaced for this Rebate Application:	Number of Showers at this Address:	Number of Showerheads Currently Replaced for this Rebate Application:	Number of persons in Household:

Old Toilet(s) Information: (this information may be found in the toilet tank or under the tank lid.)

Year of old toilet(s):_____ Size, Make, and Model: _____ _____ _____
(sizes) (makes) (model numbers)

Or

Measurement(s) of the height, depth, and width of the water level (when the tank(s) is full)

_____ _____ _____
(height) (depth) (width)

New Toilet/Shower Head Information:

Toilet: Date of purchase:____ Store where purchased from: _____ Purchase Price: $_____

_____ _____ _____ Is this a 1.28 gal/flush Toilet?_____
Manufacturer Model Name Model Number Is this a WaterSense Toilet? _____

_____ _____ _____ Is this a 1.28 gal/flush Toilet?_____
Manufacturer Model Name Model Number Is this a WaterSense Toilet? _____

Date(s) installed:_____ Install Cost:$_____ Installed by: □ Do-it yourself □ Plumber

---

Shower Head: Date of purchase:_____ Store where purchased from:_____ Price:$_____

_____ _____ _____ Is this a WaterSense Fixture?_____
Manufacturer Model Name Model Number How Many Installed? _____

_____ _____ _____ Is this a WaterSense Fixture?_____
Manufacturer Model Name Model Number How Many Installed?_____

Date installed:_____ Install Cost: $_____ Installed by: □ Do-it yourself □ Plumber

I have read and understand the policy as stated in the program guidelines and I agree to a possible site visit by Waukesha Water Utility for installation verification. Reminder: Receipt & Installation Pictures Must Be Attached.

_____ _____
Property Owner Signature Date

Toilet & Shower Head Rebate Application Back Side

Waukesha Water Utility

look for WaterSense

Large Multi-Family/Commercial Toilet Rebate Application

SECTION 1: INCENTIVE INFORMATION

- **Please note, you MUST receive pre-approval from Waukesha Water Utility prior to beginning any toilet change out project** (including removing old toilets, ordering, purchasing, and installing new toilets).
- Large Multi-Family/Commercial Toilet Rebate Incentives will be determined on a case by case basis depending on available funds.
- Incentives are only available for the cost of toilets, not for labor or installation costs.
- The total maximum incentive a customer may receive is up to $100 per toilet and no more than $10,000.
- Approval of an incentive entitles the Utility to reference the project in documents that reference its conservation program. This may include an interview with the project staff and/or photos for submission to the Wis. Water Association newsletter, the Waukesha Freeman, the Utility's website, and the annual report to the Wisconsin Public Service Commission, etc.
- Incentives are available to help implement projects that otherwise would not be completed, or to complete projects sooner than scheduled.
- See Section 2 for customer eligibility.

SECTION 2: APPLICATION REQUIREMENTS

The purpose of this form is to assess pending projects to determine if the project is eligible for a toilet rebate incentive. Funding provided is contingent upon the following requirements and upon receiving all requested documents:

- **Customers MUST work with the Utility to determine if their project would qualify and then obtain approval (in the form of a Utility-signed Incentive Agreement) prior to removing or purchasing any equipment.**
- Property where toilets are installed is a customer of Waukesha Water Utility.
- All toilets need to be inspected **before and after** installation by the Utility to ensure eligibility.
- High Efficiency toilets must replace toilets installed in 1993 or prior and are at least a 3.5 gpf (gallon per flush) toilet.
- New toilets must be 1.28 gpf WaterSense certified (the WaterSense logo is shown at the top of this Application).
- All toilets need to be installed and inspected no later than November 1st (the same calendar year of the incentive approval).
- All paper work, including the purchase order and original paid receipt, dated on or after the incentive approval date, must be submitted to the Utility no later than November 1st so that the incentive check can be issued by the end of the year.

SECTION 3: CUSTOMER LEGAL INFORMATION

Company Legal Name:	Tax Identification Number (complete ONE only, must be 9 digits): FEIN: ____-_____ OR SSN: _____-_____-_____
Company Contact Name:	Business Classification of Customer (Check ONE only. Required for all businesses, including non-profits.) ❑ Corporation ❑ Partnership ❑ Sole Proprietorship ❑ LLC ❑ Other _____

Street Address:	City:	State:	Zip Code:

Owner Name (Corporations excluded):	Phone:	Fax:	Email:

SECTION 4: PAYMENT INFORMATION (All information is required to receive payment)

Make Incentive Check Payable to (check **ONE**): ❑ Company Name ❑ Business Owner's Legal Name (Only if Sole Proprietor)

Make Check to the Attention of:

Alternate Mailing Address (if different from address above):	City:	State:	Zip Code:

Waukesha Water Utility

Large Multi-Family/Commercial Toilet Rebate Application

SECTION 5: JOB SITE INFORMATION (Where project will occur)

Job Site Name:		Project Contact Name:	
Job Site Street Address (physical address):		City:	State: / Zip Code:
Project Contact Phone:	Project Contact Fax :	Project Contact E-mail:	Preferred Means of communication: ❑ Phone ❑ Fax ❑ Mail ❑ E-mail
Account #:		Customer #:	

SECTION 6: PROJECT PARAMETERS - project specific information will be held as confidential

Project Description (including costs):

For Multi-Family: How Many Apartment Units Will Have Toilets Changed Out:_____ Number of Toilets/Unit:_____

Address(es) of the Building(s) Where Change Out Will Occur: _____

_____ Year(s) Building(s) Built:_____

For Commercial: Choose Business Type ❑ School ❑ Food Processing ❑ Food Service ❑ Lodging ❑ Other _____

❑ Healthcare ❑ Manufacturing, type _____ Number of Toilets to be Changed Out _____

New Toilet Information:

Toilets to be Purchased From: _____ Price per Toilet: _____

Toilet Manufacturer(s): _____ Model Number(s):_____

Are These New Toilets At Least 1.28 gpf? _____ Are the New Toilets WaterSense Certified?_____

SECTION 7: BACKGROUND QUESTIONS

1. Check which best describes where you are right now with your project:
   - ❑ Considering project
   - ❑ Assessing feasibility
   - ❑ Getting vendor bids and/or savings estimates
   - ❑ Received management approval
   - ❑ Started installation

2. Check your reasons for pursuing this project:
   - ❑ Reduce maintenance costs
   - ❑ Replace worn out equipment
   - ❑ Reduce utility costs
   - ❑ Comply with regulatory equipment
   - ❑ Achieve company goal or mandate

APPLICANT:

Name: _____

Signature: _____

Date: _____

WAUKESHA WATER UTILITY:

Name: _____

Signature: _____

Date: _____

Return signed, completed form to:
Mail: Waukesha Water Utility – Incentive Dept. PO BOX 1648 Waukesha, WI 53187-1648
Fax: 262.521.5265 Questions: Call 262-409-4423

New Toilet Rebate Application for Large Multi-Family/Commercial Back Side

Using the Alliance for Water Efficiency (AWE) Conservation Tracking Tool, the annual cost effectiveness of the program is demonstrated below. A B/C Ratio just under 1 indicates that the program currently costs more than the cost of the water saved.

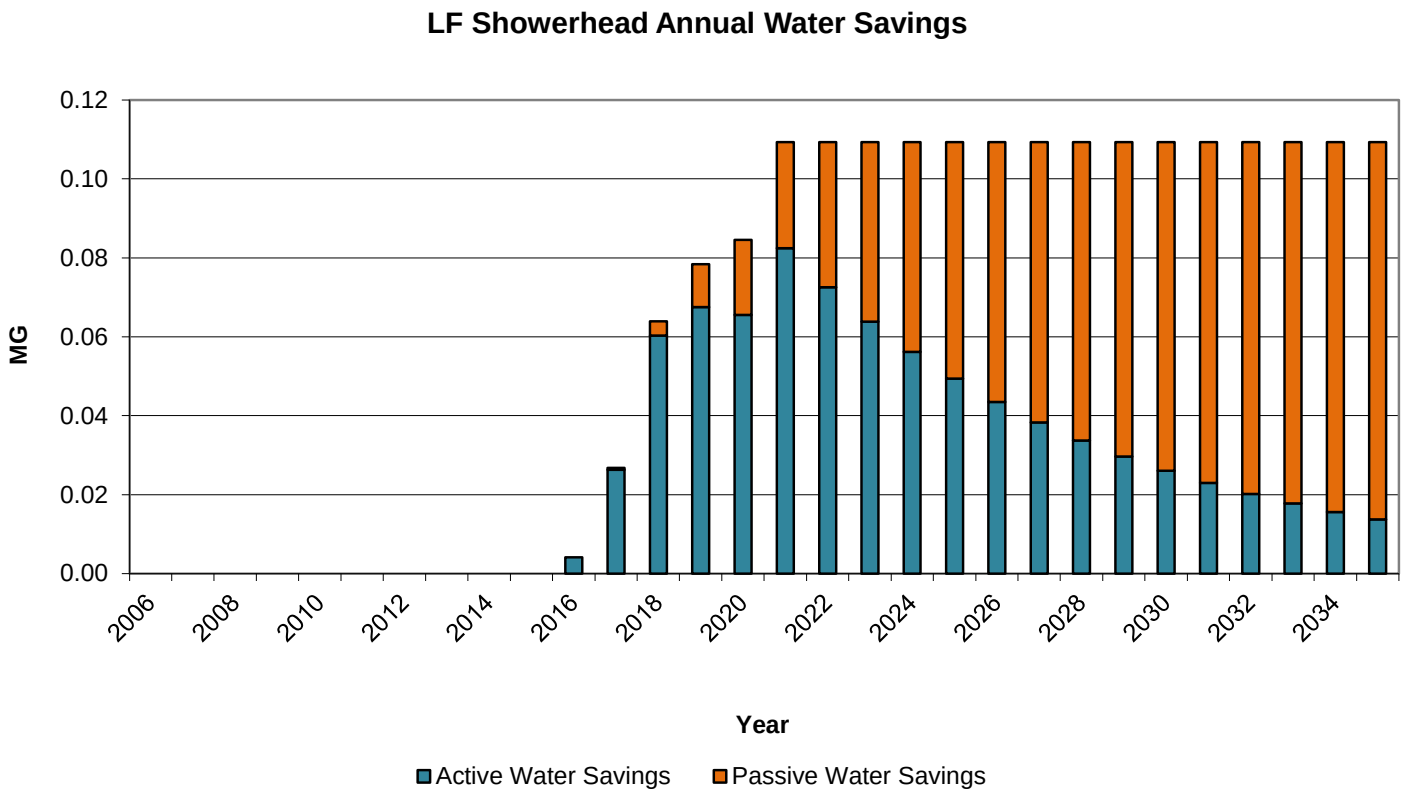
The Utility undertook this program because it was part of the 2012 Conservation Plan. The 2012 plan indicated a larger positive B/C Ratio, but the fixed costs of developing the program were underestimated.

The Utility hopes that as more showerhead programs are implemented, the fixed costs will go down and the program will yield a better ratio.

Still, water is being conserved and that is the ultimate goal of the program.

Class	Activity Name	Unit Cost ($/MG)	PV Cost	Unit Benefit ($/MG)	PV Benefit	Avoided Supply	Avoided Wastewater	B/C Ratio
Residential	LF Showerhead	1,360.28	1,128.38	1,159.84	962.11	531.09	431.02	0.85

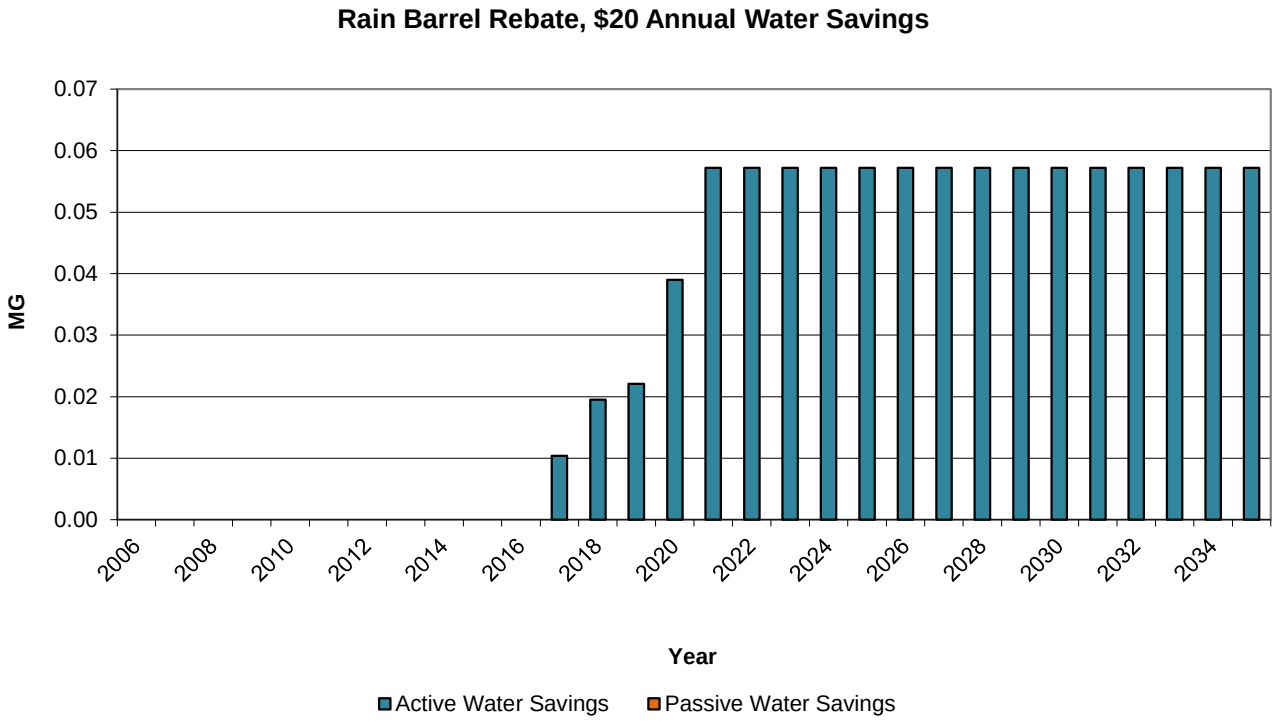
The projected water savings through 2035 is demonstrated below.



3. Rain Barrel Rebate Program

In May 2017, the Utility implemented a rain barrel rebate program. Customers who purchase and install a qualifying rain barrel, and submit their application with their original receipt and post-installation picture, are eligible for a $20 rebate. In 2021, there were 14 rain barrel rebates.

The projected water savings through 2035 is demonstrated by the graph below:



The rain barrel rebate application is shown below. The press release and website information is shown in the Education section.

Waukesha Water Utility
P.O. Box 1648
Waukesha, WI 53187-1648
Phone: (262) 409-4423
Fax: (262) 521-5265

RAIN BARREL
$20 REBATE

- Saves most homeowners about 1,300 gallons of water during the summer.
- Naturally soft, chlorine-free water is great for watering plants and washing windows or cars.

TO QUALIFY

- ☐ Rain barrels must be installed in the Waukesha Water Utility's service area.
- ☐ Renters may be eligible to participate with the written consent of the property owner.
- ☐ Qualifying barrels must be newly purchased, a minimum size of 50 gallons, and designed for the intended purpose of rain capture.
- ☐ Homemade rain barrels do not qualify for the rebate.
- ☐ Rain barrels must have a secure lid for child safety; and rust-proof screening or sealed designs over the top and on the overflow spigot for mosquito, rodent, and debris control.
- ☐ Rain barrels must not be connected to the (potable water) irrigation system.
- ☐ The **original** purchase receipt, that includes the purchase amount and barrel size, must be submitted within 90 days of purchase.
- ☐ Post-installation pictures must be included with the application.
- ☐ Maximum of 2 rain barrels allowed per address.
- ☐ Rebates are available on a first-come, first-served basis and are subject to the availability of funds.

TIPS FOR INSTALLATION & USE

- **Raise the barrel up on cinder blocks to increase pressure.** (But make sure the barrel is on a level, firm surface to prevent the barrel from falling over – a full 55 gal. barrel weighs over 400 lbs.)
- **Make sure the overflow from the barrel is directed away from your house.**
- **Disconnect the barrel in the winter and turn it upside down or take it inside.** If your downspout has been cut off for the rain barrel, be sure to add an extension hose for the winter.
- **Enclose the top of the barrel, where the water enters the barrel, with a tight-fitting, fine-mesh screen to prevent a nesting site for mosquitoes.**
- **Do not drink the water from your rain barrel.** Water from your roof is not safe to drink, but is fine to water your yard. It is **not** recommended to water vegetable gardens with your rain barrel.
- **Do not connect the rain barrel to your sprinkler systems or put the hose, which is connected to your house, into the rain barrel, as unintended suction can contaminate the water in your home.** (The best way to prevent this is to only hook a garden hose, or isolated drip irrigation system, to the outlet of your barrel and water your landscape directly.)

Rain Barrel Rebate Application Back Side

WAUKESHA WATER UTILITY
$20 RAIN BARREL REBATE APPLICATION

Name:_____ Owner ☐ Occupant ☐ Account Number:_____

Service Address (Where rain barrel is installed ~ **must** be installed in the Waukesha Water Utility service area):_____

Mail Rebate to this Address:_____

Phone (Day):_____ Phone (Evening):_____ Email Address:_____

How Did You Hear About the Rain Barrel Rebate Program?:_____

Number of Rain Barrels at this Address:_____ Number of Rain Barrels for this Rebate Application:_____

Date of Purchase:_____ Store/Place Where Purchased From:_____ Purchased Price:_____

Type of Barrel:_____ Capacity (Gallons):_____ Date Installed:_____
(Brand/Make) (Model Number)

If you are the renter, is the required written consent of the property owner attached: Yes ☐ No ☐ Or, not required, I am the Property Owner: ☐

Is the required photo attached showing the installed Rain Barrel (on a level, firm surface, under the downspout, with a secure lid): Yes ☐ No ☐

Is the required **original** purchase receipt attached: Yes ☐ No ☐

I have read the rain barrel rebate program qualifications, along with the tips for installing and using the rain barrel (on the back of this brochure).
I have all the necessary paperwork and photos attached, and agree to a possible site visit by the Waukesha Water Utility for installation verification.

_____ _____
Signature Date

5. Grants for Innovative Site Specific Water Saving Measures

In 2014, Waukesha Water Utility began to support innovative, site specific, water saving measures for non-residential accounts. The program focuses on the replacement of capital assets – incenting organizations to replace equipment with new technology that will conserve water.

In 2021, letters with the Incentive Application were mailed to the top 50 water users in the commercial, public, and industrial sectors. After the letters were mailed out, the Utility received a call and an application from Airgas, LLC, one of our manufacturing companies.

Airgas decided to install a new chiller system to recirculate both compressor and tank area cooling water. This new system will reduce the amount of city water being used in the single-pass cooling process.

Airgas completed the installation of the new chiller in December 2021. The Utility will verify the amount of water saved and calculate the cost/benefit ratio. If warranted, the incentive payout will be sent to Airgas in 2022.

The Utility will continue to to promote the business incentive in 2022, as these incentives tend to have the greatest water conservation impact.

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

115 DELAFIELD STREET
WAUKESHA, WI 53188-3615

Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail: contactus@waukesha-water.com

June 2021

Re: Water Conservation Incentive Program

To: Whom It May Concern:

Waukesha Water Utility is sending you a reminder about our Conservation Incentive program for non-residential customers. The purpose of the program is to incent organizations to replace equipment with new technology that will conserve water. Incentives are available to help implement those projects.

In order to be eligible for an incentive, the organization must complete a Water Conservation Incentive Application; and receive approval for the project before the new technology is ordered. Waukesha will assess pending projects to determine if the project is eligible for an incentive.

For more information about the program, please refer to the enclosed Incentive Application or visit Waukesha Water Utility's website at www.waukesha-water.com.

For questions, please call Waukesha Water Utility at (262) 409-4423.

Sincerely,

WAUKESHA WATER UTILITY
Customer Service

Enclosure: Water Conservation Incentive Application

Copy of the Business Incentive Cover Letter Mailed to the Top 50 Industrial, Commercial, and Public Water Users

Waukesha Water Utility
SERVING WAUKESHA SINCE 1896

Water Conservation Incentive

SECTION 1: INCENTIVE INFORMATION

Incentives are calculated on a case-by-case basis depending on the application and the size of the facility. See Section 2 for customer eligibility information. Customers must work with the Utility to determine if their project would qualify and then obtain approval (in the form of an Incentive Agreement) prior to purchasing the equipment. Incentives are available to help implement projects that otherwise would not be completed, or to complete projects sooner than scheduled.

SECTION 2: APPLICATION REQUIREMENTS

The purpose of this form is to assess pending projects to determine if the project is eligible for a custom incentive. Funding provided through custom incentives is contingent upon the following requirements and upon receiving all requested documents:

- **You MUST receive pre-approval from Waukesha Water Utility prior to beginning any custom projects, including ordering equipment.**
- Custom incentives will not be provided for projects falling under a 1.5 year payback.
- Based on project type, technology and situation, projects may be limited to a maximum simple payback of four to ten years.
- Custom incentives cannot be more than 50 percent of the project cost. Custom incentives that are less than 10% of the project cost may be considered.
- The total maximum incentive a customer may receive for custom projects combined is $20,000 per calendar year, per EIN.

SECTION 3: CUSTOMER LEGAL INFORMATION

Company Legal Name:	Tax Identification Number (complete ONE only, must be 9 digits): FEIN: ____-_____ OR SSN: _____-_____-_____		
Company Contact Name:	Business Classification of Customer (Check ONE only. Required for all businesses, including non-profits): ❑ Corporation ❑ Partnership ❑ Sole Proprietorship ❑ LLC ❑ Other		
Street Address:	City:	State:	Zip Code:
Owner Name (Corporations excluded):	Phone:	Fax:	Email:

SECTION 4: PAYMENT INFORMATION (All information is required to receive payment)

Make Incentive Check Payable to (check ONE): ❑ Company Name ❑ Business Owner's Legal Name (Only if Sole Proprietor)

Make Check to the Attention of:

Alternate Mailing Address (if different from address above):	City:	State:	Zip Code:

SECTION 5: JOB SITE INFORMATION (Where project will occur)

Job Site Name:		Project Contact Name:	
Job Site Street Address (physical address):		City:	State: / Zip Code:
Project Contact Phone	Project Contact Fax :	Project Contact E-mail:	Preferred Means of communication: ❑ Phone ❑ Fax ❑ Mail ❑ E-mail
Account #:		Customer #:	

Business Type (Check ONE):

❑ School ❑ Food Processing ❑ Food Service ❑ Lodging ❑ Other _____

❑ Healthcare ❑ Manufacturing, type _____

P:\CONSERVATION\2015\Grants\Application Form\App Water Conservation Incentive2.docx

Front Side of Incentive Application

Waukesha Water Utility

Water Conservation Incentive

SECTION 6: PROJECT PARAMETERS - project specific information will be held as confidential

Project Description (including costs):

Projected Annual Gallons Saved	3 yr. Average Annual Consumption:	Project Start Date:	Project Completion Date:

Hours of Operation (i.e. 8 a.m. - 9 p.m.)

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
____ to ____	____ to ____	____ to ____	____ to ____	____ to ____	____ to ____	____ to ____

❑ Information on existing equipment, system operation and building operation attached (If available).

❑ Specification sheets and/or project proposals attached (If available).

SECTION 7: BACKGROUND QUESTIONS

1. Check which best describes where you are right now with your project:
   - ❑ Considering project
   - ❑ Assessing feasibility
   - ❑ Getting vendor bids and/or savings estimates
   - ❑ Received management approval
   - ❑ Started installation

2. Check your reasons for pursuing this project:
   - ❑ Reduce maintenance costs
   - ❑ Replace worn out equipment
   - ❑ Reduce energy costs
   - ❑ Comply with regulatory equipment
   - ❑ Achieve company goal or mandate

APPLICANT:

Name: _____

Signature: _____

Date: _____

WAUKESHA WATER UTILITY:

Name: _____

Signature: _____

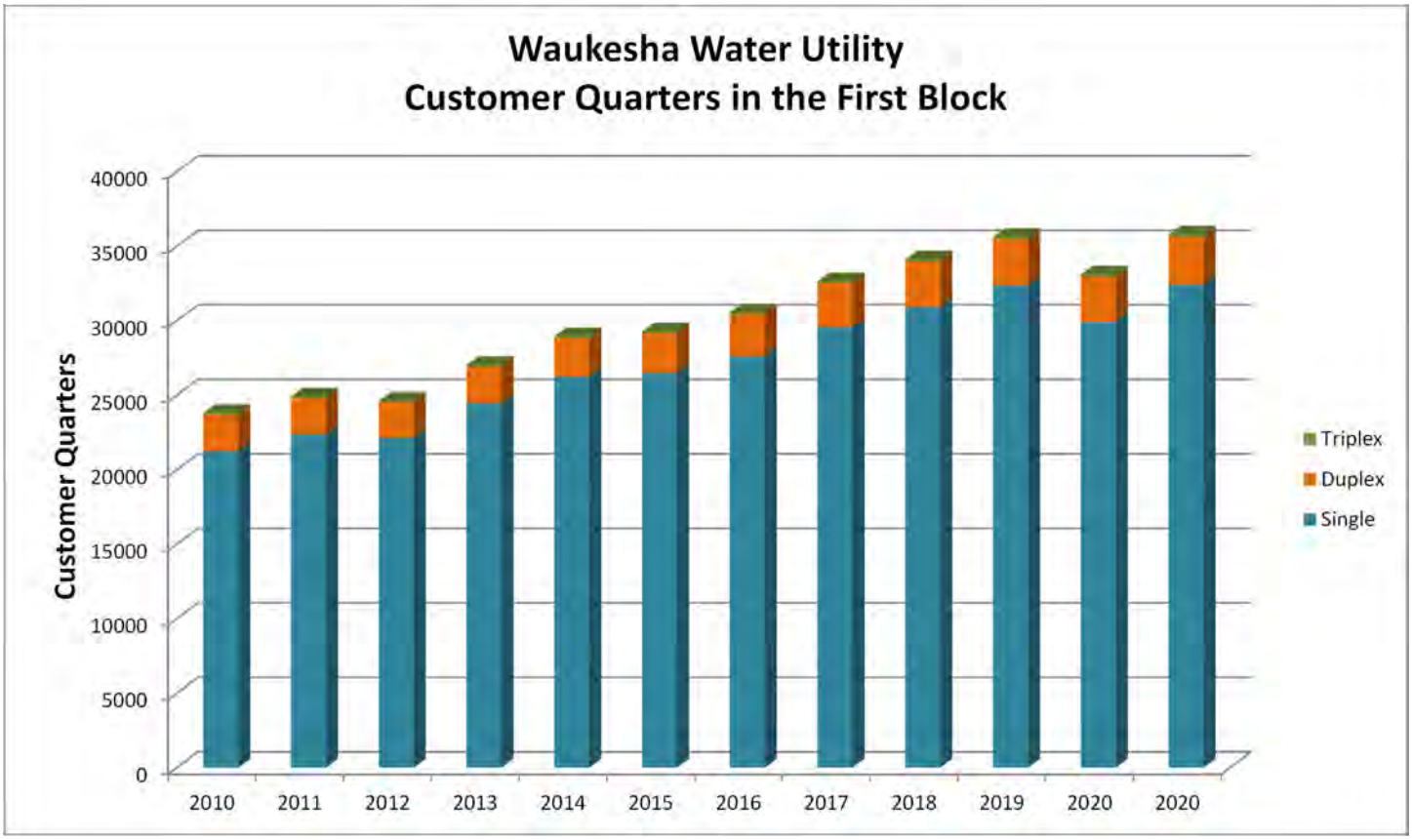
Date: _____

P:\Conservation\2015\Grants\Application Form\App Water Conservation Incentive_Back Side.docx

Back Side of Incentive Application

IV. EFFECTS OF WATER RATES STRUCTURE

While the Utility implemented an inclining rate block structure in 2007, it wasn't until 2010 that it had data separated into single, duplex and triplex customers. From 2010 to 2021, with the exception of 2020, the number of customers within the first block has increased. It is assumed that the combination of the rate structure and other conservation measures, such as the installation high-efficient appliances and equipment, are the reason for this trend.

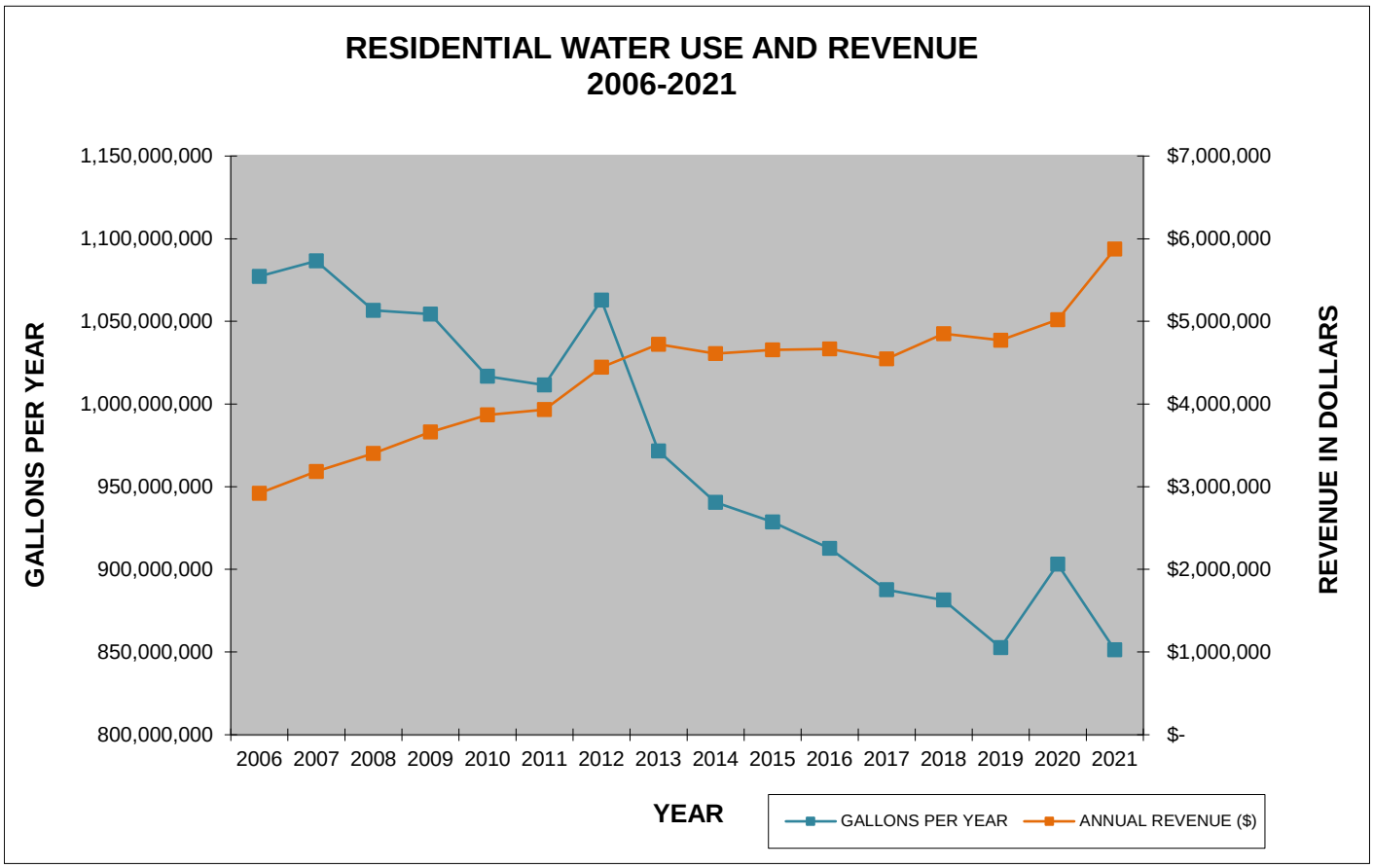


The detailed data, on the next three pages, supplements the consumption history; supplied in previous years' reports. In order to provide a more accurate picture of "# of customers," volumes associated with final reads have been excluded.

Single Family Consumption																				
	2017				2018				2019				2020				2021			
Interval	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%
	Quarter 1				Quarter 1				Quarter 1				Quarter 1				Quarter 1			
0-10,000	7,521	46.5%	47,052,400	25.4%	7,785	47.8%	49,277,700	25.9%	8,063	49.1%	50,909,100	27.8%	8,418	51.0%	52,645,300	29.5%	8,681	52.8%	55,017,200	31.4%
10,001-30,000	8,413	52.0%	127,505,300	68.8%	8,271	50.7%	125,403,200	65.8%	8,125	49.5%	122,727,900	67.1%	7,928	48.0%	118,556,700	66.4%	7,624	46.3%	113,681,800	64.9%
>30,000	249	1.5%	10,734,000	5.8%	246	1.5%	15,850,800	8.3%	225	1.4%	9,396,500	5.1%	174	1.1%	7,308,900	4.1%	150	0.9%	6,454,300	3.7%
Q Total	16,183	100.0%	185,291,700	100.0%	16,302	100.0%	190,531,700	100.0%	16,413	100.0%	183,033,500	100.0%	16,520	100.0%	178,510,900	100.0%	16,455	100.0%	175,153,300	100.0%
	Quarter 2				Quarter 2				Quarter 2				Quarter 2				Quarter 2			
0-10,000	7,862	48.5%	49,685,600	27.2%	8,087	49.5%	51,168,800	27.9%	8,647	52.6%	53,951,400	30.8%	7,606	46.0%	47,441,600	24.7%	7,713	46.7%	49,668,500	26.0%
10,001-30,000	8,106	50.0%	122,668,700	67.3%	8,015	49.1%	121,607,500	66.2%	7,612	46.3%	113,733,100	64.9%	8,661	52.4%	134,096,900	69.8%	8,560	51.8%	131,580,500	69.0%
>30,000	247	1.5%	10,005,600	5.5%	233	1.4%	10,789,800	5.9%	184	1.1%	7,462,000	4.3%	272	1.6%	10,500,100	5.5%	248	1.5%	9,485,300	5.0%
Q Total	16,215	100.0%	182,359,900	100.0%	16,335	100.0%	183,566,100	100.0%	16,443	100.0%	175,146,500	100.0%	16,539	100.0%	192,038,600	100.0%	16,521	100.0%	190,734,300	100.0%
	Quarter 3				Quarter 3				Quarter 3				Quarter 3				Quarter 3			
0-10,000	6,792	41.8%	43,901,300	21.0%	6,932	42.4%	44,197,800	21.2%	7,392	44.9%	47,328,300	23.3%	6,334	38.3%	40,092,600	17.6%	7,132	43.1%	46,002,100	21.9%
10,001-30,000	8,893	54.8%	140,510,800	67.3%	8,884	54.3%	140,303,800	67.3%	8,610	52.3%	134,962,500	66.4%	9,483	57.4%	156,563,800	68.7%	8,900	53.8%	141,138,800	67.1%
>30,000	554	3.4%	24,290,900	11.6%	530	3.2%	23,825,600	11.4%	472	2.9%	20,887,900	10.3%	717	4.3%	31,313,400	13.7%	522	3.2%	23,072,900	11.0%
Q Total	16,239	100.0%	208,703,000	100.0%	16,346	100.0%	208,327,200	100.0%	16,474	100.0%	203,178,700	100.0%	16,534	100.0%	227,969,800	100.0%	16,554	100.0%	210,213,800	100.0%
	Quarter 4				Quarter 4				Quarter 4				Quarter 4				Quarter 4			
0-10,000	7,390	45.4%	47,228,200	24.2%	8,098	49.4%	51,610,700	28.0%	8,263	50.1%	52,436,200	28.7%	7,571	45.7%	48,448,100	24.7%	8,888	53.7%	56,945,100	32.4%
10,001-30,000	8,486	52.1%	130,856,700	67.1%	8,041	49.1%	121,690,100	66.0%	7,997	48.5%	120,580,800	65.9%	8,711	52.6%	135,330,400	69.1%	7,499	45.3%	112,083,000	63.7%
>30,000	401	2.5%	16,839,200	8.6%	252	1.5%	11,063,900	6.0%	238	1.4%	9,877,100	5.4%	291	1.8%	12,129,300	6.2%	171	1.0%	6,863,900	3.9%
Q Total	16,277	100.0%	194,924,100	100.0%	16,391	100.0%	184,364,700	100.0%	16,498	100.0%	182,894,100	100.0%	16,573	100.0%	195,907,800	100.0%	16,558	100.0%	175,892,000	100.0%
	Annual				Annual				Annual				Annual				Annual			
0-10,000	7,391	45.5%	187,867,500	24.4%	7,726	47.3%	196,255,000	25.6%	8,091	49.2%	204,625,000	27.5%	7,482	45.2%	188,627,600	23.7%	8,104	49.0%	207,632,900	27.6%
10,001-30,000	8,475	52.2%	521,541,500	67.6%	8,303	50.8%	509,004,600	66.4%	8,086	49.1%	492,004,300	66.1%	8,696	52.6%	544,547,800	68.5%	8,146	49.3%	498,484,100	66.3%
>30,000	363	2.2%	61,869,700	8.0%	315	1.9%	61,530,100	8.0%	280	1.7%	47,623,500	6.4%	364	2.2%	61,251,700	7.7%	273	1.7%	45,876,400	6.1%
Total	16,229	100.0%	771,278,700	100.0%	16,344	100.0%	766,789,700	100.0%	16,457	100.0%	744,252,800	100.0%	16,542	100.0%	794,427,100	100.0%	16,522	100.0%	751,993,400	100.0%

Two Family Consumption																				
	2017				2018				2019				2020				2021			
Interval	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%
	Quarter 1				Quarter 1				Quarter 1				Quarter 1				Quarter 1			
0-20,000	729	53.8%	9,374,000	32.3%	763	56.9%	10,045,100	34.8%	766	57.6%	9,707,800	35.5%	809	61.1%	10,214,600	39.2%	823	64.0%	10,108,500	41.3%
20,001-35,000	470	34.7%	12,415,400	42.8%	433	32.3%	11,187,700	38.8%	429	32.2%	11,007,200	40.3%	400	30.2%	10,297,500	39.5%	369	28.7%	9,383,800	38.3%
>35,000	157	11.6%	7,214,600	24.9%	144	10.7%	7,628,900	26.4%	136	10.2%	6,631,300	24.2%	114	8.6%	5,559,200	21.3%	94	7.3%	5,002,400	20.4%
Q Total	1,356	100.0%	29,004,000	100.0%	1,340	100.0%	28,861,700	100.0%	1,331	100.0%	27,346,300	100.0%	1,323	100.0%	26,071,300	100.0%	1,286	100.0%	24,494,700	100.0%
	Quarter 2				Quarter 2				Quarter 2				Quarter 2				Quarter 2			
0-20,000	745	55.0%	9,499,700	34.2%	786	58.7%	10,225,400	37.4%	815	61.4%	10,231,400	39.4%	771	58.5%	9,892,400	36.2%	774	60.1%	9,686,100	38.4%
20,001-35,000	469	34.6%	12,085,400	43.5%	411	30.7%	10,666,400	39.0%	402	30.3%	10,414,600	40.1%	411	31.2%	10,563,600	38.6%	403	31.3%	10,364,000	41.1%
>35,000	140	10.3%	6,228,600	22.4%	142	10.6%	6,482,800	23.7%	111	8.4%	5,314,300	20.5%	136	10.3%	6,894,500	25.2%	110	8.5%	5,147,600	20.4%
Q Total	1,354	100.0%	27,813,700	100.0%	1,339	100.0%	27,374,600	100.0%	1,328	100.0%	25,960,300	100.0%	1,318	100.0%	27,350,500	100.0%	1,287	100.0%	25,197,700	100.0%
	Quarter 3				Quarter 3				Quarter 3				Quarter 3				Quarter 3			
0-20,000	715	53.0%	9,462,200	31.7%	754	56.4%	9,834,700	34.3%	764	57.6%	9,831,000	35.4%	695	52.8%	9,198,100	31.2%	759	59.0%	9,557,400	36.7%
20,001-35,000	470	34.9%	12,318,400	41.2%	416	31.1%	10,797,500	37.7%	410	30.9%	10,710,600	38.6%	451	34.3%	11,807,300	40.1%	406	31.6%	10,442,000	40.1%
>35,000	163	12.1%	8,100,300	27.1%	168	12.6%	8,006,500	28.0%	153	11.5%	7,196,200	25.9%	170	12.9%	8,443,200	28.7%	121	9.4%	6,050,700	23.2%
Q Total	1,348	100.0%	29,880,900	100.0%	1,338	100.0%	28,638,700	100.0%	1,327	100.0%	27,737,800	100.0%	1,316	100.0%	29,448,600	100.0%	1,286	100.0%	26,050,100	100.0%
	Quarter 4				Quarter 4				Quarter 4				Quarter 4				Quarter 4			
0-20,000	759	56.3%	10,137,200	35.1%	772	57.7%	9,886,500	35.9%	779	58.5%	9,812,900	36.1%	748	56.7%	9,619,900	34.6%	836	65.2%	10,416,400	43.9%
20,001-35,000	451	33.5%	11,783,600	40.7%	415	31.0%	10,648,300	38.7%	415	31.2%	10,748,800	39.6%	442	33.5%	11,526,000	41.4%	358	27.9%	9,184,400	38.7%
>35,000	137	10.2%	6,996,300	24.2%	150	11.2%	6,980,600	25.4%	138	10.4%	6,612,900	24.3%	129	9.8%	6,679,000	24.0%	88	6.9%	4,109,100	17.3%
Q Total	1,347	100.0%	28,917,100	100.0%	1,337	100.0%	27,515,400	100.0%	1,332	100.0%	27,174,600	100.0%	1,319	100.0%	27,824,900	100.0%	1,282	100.0%	23,709,900	100.0%
	Annual				Annual				Annual				Annual				Annual			
0-20,000	737	54.5%	38,473,100	33.3%	769	57.4%	39,991,700	35.6%	781	58.7%	39,583,100	36.6%	756	57.3%	38,925,000	35.2%	798	62.1%	39,768,400	40.0%
20,001-35,000	465	34.4%	48,602,800	42.0%	419	31.3%	43,299,900	38.5%	414	31.1%	42,881,200	39.6%	426	32.3%	44,194,400	39.9%	384	29.9%	39,374,200	39.6%
>35,000	149	11.0%	28,539,800	24.7%	151	11.3%	29,098,800	25.9%	135	10.1%	25,754,700	23.8%	137	10.4%	27,575,900	24.9%	103	8.0%	20,309,800	20.4%
Total	1,351	100.0%	115,615,700	100.0%	1,339	100.0%	112,390,400	100.0%	1,330	100.0%	108,219,000	100.0%	1,319	100.0%	110,695,300	100.0%	1,285	100.0%	99,452,400	100.0%

Three Family Consumption																				
	2017				2018				2019				2020				2021			
Interval	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%
	Quarter 1				Quarter 1				Quarter 1				Quarter 1				Quarter 1			
0-20,000	35	46.7%	512,100	27.5%	33	43.4%	456,700	24.7%	31	40.8%	415,200	21.2%	34	44.2%	426,400	25.5%	40	52.6%	527,000	33.3%
20,001-60,000	38	50.7%	1,174,800	63.1%	42	55.3%	1,324,500	71.6%	43	56.6%	1,396,300	71.2%	43	55.8%	1,246,300	74.5%	36	47.4%	1,057,100	66.7%
>60,001	2	2.7%	175,000	9.4%	1	1.3%	69,200	3.7%	2	2.6%	150,500	7.7%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Q Total	75	100.0%	1,861,900	100.0%	76	100.0%	1,850,400	100.0%	76	100.0%	1,962,000	100.0%	77	100.0%	1,672,700	100.0%	76	100.0%	1,584,100	100.0%
	Quarter 2				Quarter 2				Quarter 2				Quarter 2				Quarter 2			
0-20,000	33	44.0%	475,900	28.1%	35	46.7%	513,400	28.5%	34	44.2%	437,500	24.4%	29	37.7%	390,600	17.7%	39	51.3%	534,900	30.1%
20,001-60,000	42	56.0%	1,216,900	71.9%	40	53.3%	1,288,800	71.5%	43	55.8%	1,355,000	75.6%	46	59.7%	1,387,500	62.9%	36	47.4%	1,148,800	64.7%
>60,001	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	2	2.6%	429,100	19.4%	1	1.3%	92,900	5.2%
Q Total	75	100.0%	1,692,800	100.0%	75	100.0%	1,802,200	100.0%	77	100.0%	1,792,500	100.0%	77	100.0%	2,207,200	100.0%	76	100.0%	1,776,600	100.0%
	Quarter 3				Quarter 3				Quarter 3				Quarter 3				Quarter 3			
0-20,000	24	31.6%	316,200	17.0%	30	39.5%	406,200	20.4%	31	40.3%	376,200	18.0%	31	39.7%	410,000	14.6%	39	51.3%	520,800	29.8%
20,001-60,000	52	68.4%	1,548,800	83.0%	43	56.6%	1,339,900	67.3%	44	57.1%	1,336,800	63.8%	44	56.4%	1,509,300	53.8%	36	47.4%	1,140,800	65.3%
>60,001	-	0.0%	-	0.0%	3	3.9%	245,300	12.3%	2	2.6%	382,600	18.3%	3	3.8%	887,300	31.6%	1	1.3%	84,500	4.8%
Q Total	76	100.0%	1,865,000	100.0%	76	100.0%	1,991,400	100.0%	77	100.0%	2,095,600	100.0%	78	100.0%	2,806,600	100.0%	76	100.0%	1,746,100	100.0%
	Quarter 4				Quarter 4				Quarter 4				Quarter 4				Quarter 4			
0-20,000	31	40.8%	430,300	22.3%	27	36.0%	363,900	17.8%	31	41.3%	418,400	21.1%	38	50.7%	551,300	25.6%	43	56.6%	524,900	34.9%
20,001-60,000	44	57.9%	1,440,400	74.6%	44	58.7%	1,336,000	65.3%	43	57.3%	1,384,700	70.0%	35	46.7%	1,109,800	51.6%	33	43.4%	977,100	65.1%
>60,001	1	1.3%	60,500	3.1%	4	5.3%	345,800	16.9%	1	1.3%	175,400	8.9%	2	2.7%	490,500	22.8%	-	0.0%	-	0.0%
Q Total	76	100.0%	1,931,200	100.0%	75	100.0%	2,045,700	100.0%	75	100.0%	1,978,500	100.0%	75	100.0%	2,151,600	100.0%	76	100.0%	1,502,000	100.0%
	Annual				Annual				Annual				Annual				Annual			
0-20,000	31	40.7%	1,734,500	23.6%	31	41.4%	1,740,200	22.6%	32	41.6%	1,647,300	21.0%	33	43.0%	1,778,300	20.1%	40	53.0%	2,107,600	31.9%
20,001-60,000	44	58.3%	5,380,900	73.2%	42	56.0%	5,289,200	68.8%	43	56.7%	5,472,800	69.9%	42	54.7%	5,252,900	59.4%	35	46.4%	4,323,800	65.4%
>60,001	1	1.0%	235,500	3.2%	2	2.6%	660,300	8.6%	1	1.6%	708,500	9.1%	2	2.3%	1,806,900	20.4%	1	0.7%	177,400	2.7%
Total	76	100.0%	7,350,900	100.0%	76	100.0%	7,689,700	100.0%	76	100.0%	7,828,600	100.0%	77	100.0%	8,838,100	100.0%	76	100.0%	6,608,800	100.0%



A review of residential revenue and gallons billed indicates that, in general, the Utility has done a good job of using the rate making process to offset the decrease in revenue that would come from fewer gallons consumed.

V. CONSERVATION EFFICIENCY MEASURES - NONRESIDENTIAL CUSTOMERS

Commercial, Industrial and Public rates were set in 2012 with declining blocks.

In February 2021, the Utility had a rate increase approved by the PSC, and also transitioned to monthly billing. Below are the adjusted consumptions and updated rates.

Rates per 1,000 Gallons February 9, 2021	
Gallons	Commercial, Industrial, Public
0 - 25,000	$4.36
25,001 - 500,000	$4.11
Over 500,000	$3.63

As seen below, there appears to be enough variation in consumption within the classes to question whether the structure is affecting utilization. Anecdotally, consumption seems to move with the economy and the weather.

Metered Usage for Non-Residential							
Billing Class	2015 (Gallons)	2016 (Gallons)	2017 (Gallons)	2018 (Gallons)	2019 (Gallons)	2020 (Gallons)	2021 (Gallons)
Commercial	774,316,900	763,290,200	729,873,000	707,267,000	696,184,000	663,605,300	706,398,800
Industrial	262,476,500	237,069,700	232,668,900	230,557,100	220,675,300	161,293,500	137,807,900
Public	99,075,700	83,040,900	72,384,600	67,338,800	65,913,900	47,756,950	62,240,450
Irrigation	n/a	n/a	n/a	4,447,476	2,879,000	6,206,500	11,538,200

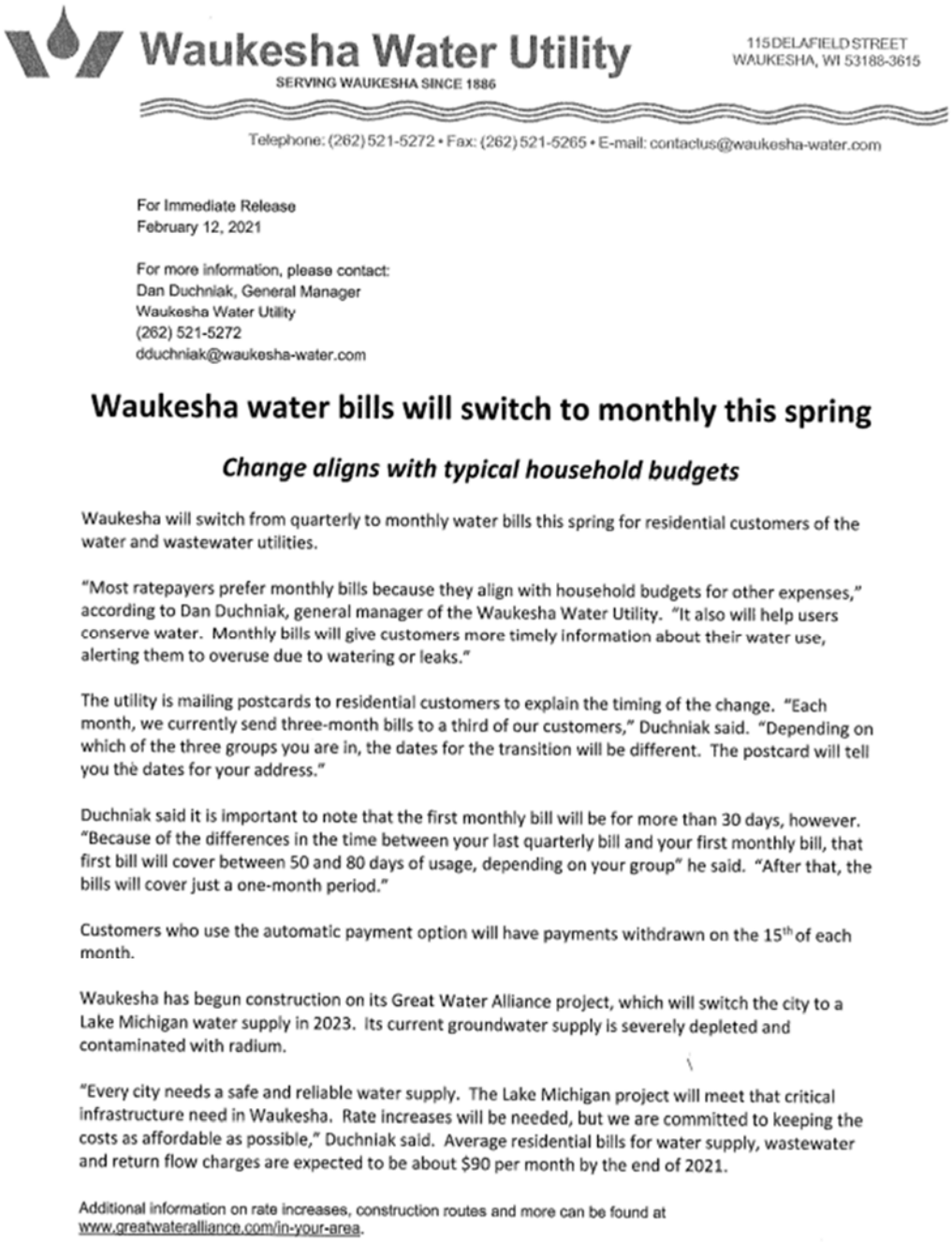
Therefore the Utility uses efforts, other than the rate structure, to incent conservation.

To bolster the rate increase, the Utility has additional conservation programs that affect Non-Residential customers and all customer classes. The additional programs include the following:

1. Monthly Billing (for all customer classes)
2. Irrigation Rates (for all customer classes)
3. Sprinkling Ordinance (for all customer classes)
4. Irrigation Ordinance (for all customer classes)
5. Sewer Ordinance Change (for all customer classes)
6. Yard Sign Campaign (for all customer classes)
7. Waukesha Rain Barrel Promotion Program (for all customer classes)
8. Outdoor Conservation Tips (for all customer classes)
9. Pre-rinsed Spray Valves (for non-residential classes)
10. Why it's Important To Conserve & What You Can Do (for all customer classes)
11. How Much Water Do You Use? & Things to do to Lower Your Bill (all customer classes)
12. Program on Finding & Fixing Leaks (for all customers)
13. Web Based Consumption History and Comparisons Available (for all customers)
14. Audit Program (for residential & non-residential customers)

1. Monthly Billing

In the spring of 2021, the Utility switched to monthly billing for all customers classes. Previously, large industrial customers were billed monthly, while all other customers were billed quarterly. Most ratepayers prefer monthly billing because it's easier to budget with other monthly expenses. In addition, monthly billing helps users conserve water because monthly bills give customers more timely information about their water usage, alerting them to overuse due to watering or leaks. A copy of the Press Release is shown below.



Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

115 DELAFIELD STREET
WAUKESHA, WI 53188-3615

Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail: contactus@waukesha-water.com

For Immediate Release
February 12, 2021

For more information, please contact:
Dan Duchniak, General Manager
Waukesha Water Utility
(262) 521-5272
dduchniak@waukesha-water.com

Waukesha water bills will switch to monthly this spring

Change aligns with typical household budgets

Waukesha will switch from quarterly to monthly water bills this spring for residential customers of the water and wastewater utilities.

"Most ratepayers prefer monthly bills because they align with household budgets for other expenses," according to Dan Duchniak, general manager of the Waukesha Water Utility. "It also will help users conserve water. Monthly bills will give customers more timely information about their water use, alerting them to overuse due to watering or leaks."

The utility is mailing postcards to residential customers to explain the timing of the change. "Each month, we currently send three-month bills to a third of our customers," Duchniak said. "Depending on which of the three groups you are in, the dates for the transition will be different. The postcard will tell you the dates for your address."

Duchniak said it is important to note that the first monthly bill will be for more than 30 days, however. "Because of the differences in the time between your last quarterly bill and your first monthly bill, that first bill will cover between 50 and 80 days of usage, depending on your group" he said. "After that, the bills will cover just a one-month period."

Customers who use the automatic payment option will have payments withdrawn on the 15th of each month.

Waukesha has begun construction on its Great Water Alliance project, which will switch the city to a Lake Michigan water supply in 2023. Its current groundwater supply is severely depleted and contaminated with radium.

"Every city needs a safe and reliable water supply. The Lake Michigan project will meet that critical infrastructure need in Waukesha. Rate increases will be needed, but we are committed to keeping the costs as affordable as possible," Duchniak said. Average residential bills for water supply, wastewater and return flow charges are expected to be about $90 per month by the end of 2021.

Additional information on rate increases, construction routes and more can be found at www.greatwateralliance.com/in-your-area.

Utility Switching to Monthly Billing
Press Release

2. Irrigation Rates

Effective December 1, 2017, the Wisconsin Public Service Commission (PSC) approved our application to offer Irrigation Rates to our customers.

The irrigation rates were designed with two goals in mind. First, to bill for water used outside that is not collected into the sewer system. Second, to encourage conservation of a limited resource.

In 2021, the volumetric rate was increased to $6.90 per thousand gallons; and the Utility received 5 appllications for irrigation meters.

A copy of the Irrigation Application, with all of its attachments, is shown on the following pages.

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

115 Delafield Street
Waukesha, WI 53188-3615

Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail: contactus@waukesha-water.com

Re: Irrigation Meter

Dear Customer:

This letter is regarding your inquiry into an irrigation meter for your property. If you are interested in the installation of an irrigation meter, please review the instructions, complete the enclosed application, and return it to the Waukesha Water Utility with a check for $130.00 for each irrigation meter you would like to install. Please note that in order to complete the application, you will need to obtain a plumbing permit. The permit can be obtained at City Hall.

Also, when considering an irrigation meter, please remember that the city of Waukesha has a Sprinkling Ordinance. Every year, beginning May 1st – October 1st, addresses ending in an Odd number, may only water on Tuesdays & Saturdays (before 9 a.m. or after 5 p.m.); addresses ending in an Even number, may only water on Thursdays & Sundays (before 9 a.m. or after 5 p.m.). If you have an automatic sprinkling system, please be sure to schedule the sprinkling times appropriately.

The billing rates for an irrigation meter, effective on February 1, 2021, are as follows:

Quarterly Charges			
Meter Size	$	Meter Size	$
5/8"	$32.01	3"	$237.00
3/4"	$32.01	4"	$321.00
1"	$53.34	6"	$519.00
1 ¼"	$78.24	8"	$789.00
1 ½"	$88.89	10"	$1,140.00
2"	$138.69	12"	$1,395.00
Volumetric Charge	$6.90 per 1,000 gallons		

If you have any further questions, please call us at (262) 521-5272 between 8:00 a.m. and 4:00 p.m.

Sincerely,

Waukesha Water Utility

P/ADMIN/Multiple Meter Ap 1 19 21

Cover Letter for Irrigation Meter Application

Waukesha Water Utility

IRRIGATION METER

In order to install an irrigation meter and radio, please do the following:

1. **Obtain a plumbing permit from City Hall**
   Plumbing permits are issued by the Building Inspector. They may be obtained in room 200 in the City Hall at 201 Delafield St. The office is open from 8:00 to 4:30. The telephone is (262) 524-3750.

2. **Complete the attached application**
   You may need to work with a plumber or our customer service staff to complete the application. Please be aware that you will receive a separate bill for this meter.

3. **Pay the application fee ($130)**
   The fee is paid at the Water Utility. It covers the time our engineering staff spends to ensure that the meter will be the appropriate size to meet your needs from information supplied by you or your plumber. It also covers the administrative time spent processing the application. Finally, it covers the time our field crew will spend installing the meter and radio at the premises.

4. **Install the fixtures for the irrigation meter**
   Whether you intend to do-it-yourself or hire a plumber, the pipes, meter valve, and the copperhorn for the meter must be installed according to the attached specifications. The materials must also be in compliance with Wisconsin Administrative Code. Because you pay for all of these materials and work, you will own all of this plumbing.

5. **Set an appointment with the Water Utility to install the meter and radio**
   To have the meter installed, please call Customer Service at (262) 521-5272. You will want to make this appointment at least a week in advance, especially if you want to coordinate the work so that it gets done on the same day that a plumber is present. The Water Utility owns, operates and maintains only the meter and the radio. If your installation of the meter and radio requires additional hardware, you will be invoiced for that additional hardware.

6. **Schedule your sprinkling times according to Waukesha's Sprinkling Ordinance**
   Every year, beginning May 1st – October 1st, Waukesha has the following Sprinkling Ordinance: addresses ending in an Odd number, may only water on Tuesdays & Saturdays (before 9 a.m. or after 5 p.m.); addresses ending in an Even number, may only water on Thursdays & Sundays (before 9 a.m. or after 5 p.m.). If you have an automatic sprinkling system, please be sure to schedule the sprinkling times appropriately.

115 Delafield Street
P.O. Box 1648
Waukesha, WI 53187-1648

Questions regarding the application process: (262) 521-5272

Fax Number: (262) 521-5265

Waukesha Water Utility

APPLICATION FOR IRRIGATION METER

1. Property Address _____

2. Building Type __Single Family __Duplex __Triplex __Apartment (> 4 units) __Condo

3. Owner's Name _____ Phone_____

4. Owner's Address _____

5. Plumber's Name _____ Phone_____

6. Plumber's Address _____

7. Please list the number of water using devices that will be measured by this meter

   _____ ¾" Garden Hose _____ ½" Garden Hose _____ Underground Sprinkler

8. Gallons per minute needed _____

9. City Plumbing Permit # _____

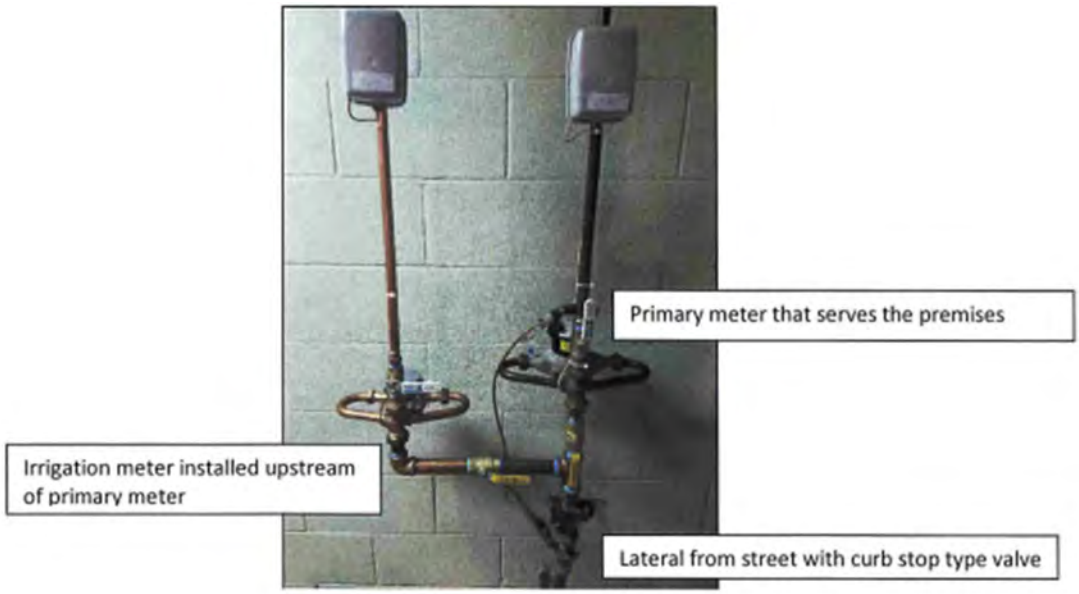
10. Who is responsible for payment? ____Owner ____Plumber

11. Are you aware of Waukesha's Sprinkling Ordinance (as explained in the cover letter)? __Yes __No

Signature _____ Date _____

Waukesha Water Utility

IRRIGATION METER SPECIFICATIONS



Installation of a 5/8 inch irrigation meter

NOTE 1: Copperhorns shall comply with ANSI/AWWA C-800, have a lead free brass body with copper arms and swivel connections manufactured by Ford in the following sizes.

Meter Size	Copperhorn
5/8"	No. 1 provided with union nuts
3/4"	No. 3 provided with union nuts
1 "	No. 4 provided with union nuts

NOTE 2: The Utility will install the meter valve and the copperhorn upon the request of the applicant. The cost will be billed to the applicant as outlined in the current Waukesha Water Utility Fee Schedule.

NOTE 3: The Utility Rules and Regulations Manual requires a four foot clearance around the meter.

NOTE 4: All brass must be lead free.

NOTE 5: The Utility will replace (at the cost of the applicant) any copperhorn or valve that does not comply with the specifications, above.

NOTE 6: Certified vacuum breakers shall be installed at each hose bib.

NOTE 7: Fixtures serving, and served by, the irrigation should be separately labeled.

Irrigation Meter Installation Specifications Sheet

In addition to the Irrigation Rates, the Utility also uses the next seven programs to encourage conservation during the summer months.

There is a discussion of each of these tools below; followed by data that demonstrates the efficacy of the Utility's approach.

3. Sprinkling Ordinance

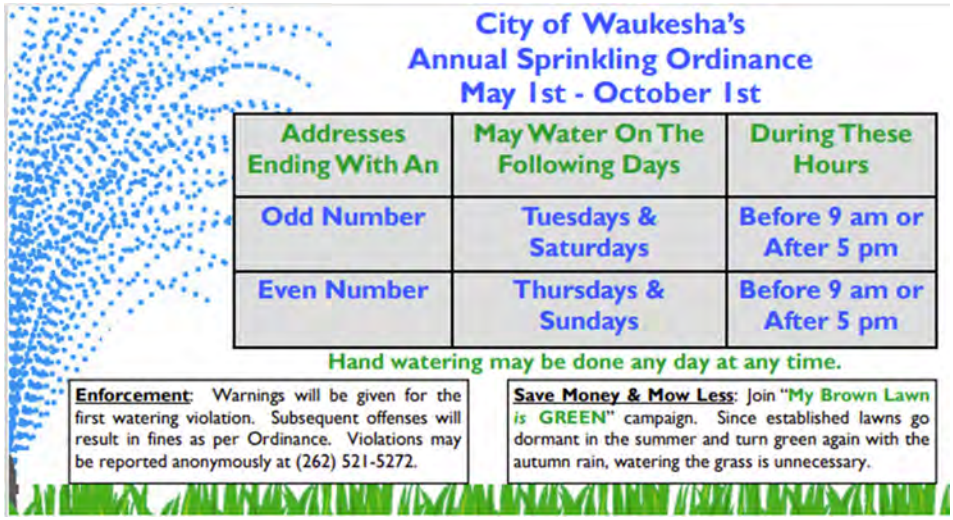
City Ordinance 13.11 was enacted in 2006 and applies to all customers in Waukesha. The ordinance is in effect from May 1 to Oct 1 each year. This ordinance bans all sprinkling during the daytime hours of 9 AM to 5 PM during the stated time period. Customers are allowed to irrigate two days a week according to their address.

A brochure that explains the ordinance is placed at several public locations.

Brochure Outside

Brochure Inside

In addition to the Sprinkling Ordinance brochure, a **Bill Message** is placed on a monthly bill and **Bill Stuffers** are sent to all customers each year to remind customers of the Ordinance.



City of Waukesha's Annual Sprinkling Ordinance May 1st - October 1st

Addresses Ending With An	May Water On The Following Days	During These Hours
Odd Number	Tuesdays & Saturdays	Before 9 am or After 5 pm
Even Number	Thursdays & Sundays	Before 9 am or After 5 pm

Hand watering may be done any day at any time.

Enforcement: Warnings will be given for the first watering violation. Subsequent offenses will result in fines as per Ordinance. Violations may be reported anonymously at (262) 521-5272.

Save Money & Mow Less: Join "My Brown Lawn *is* GREEN" campaign. Since established lawns go dormant in the summer and turn green again with the autumn rain, watering the grass is unnecessary.

Front Side

Did you know...

- If you replace your old water guzzling toilet (3.5 gallon or more) with a 1.28 gpf (gallons per flush) WaterSense toilet, you may be eligible to receive a rebate from the Water Utility.
- You can purchase rain barrels through the Waukesha School District's Environmental Education Department (262-970-4333) or Retzer Nature Center (262-896-8007). Capturing rain water not only saves you money but is better for your garden, lawn, and plants because the water is not chlorinated.
- It is not necessary to water the lawn. It is natural for lawns to turn brown in the hottest months. The lawn doesn't die, it just goes dormant. The green lawn will return with the autumn rain.
- Toilets should be checked for leaks at least twice a year because they are one of the most common places where leaks occur. Hundreds of gallons of water per day can be wasted. Free Leak Detection Dye Tablets are available at the Utility.
- Dripping faucets are usually easily and inexpensively repaired by replacing the washer inside the handle. Check both internal and external faucets for leaks. See our website for videos on how to fix leaks.

For more detailed information, please visit our website at www.ci.waukesha.wi.us/waterhome

Back Side

Street signs, alerting the public to the Ordinance, have been place on every major street and reminders are placed in **local papers** (as seen on the next page).

Fines are approved and in place for violations to this Ordinance, as follows:

1st Citation	$172
2nd Citation	$298
3rd Citation	$424
4th Citation	$676

Before citations are issued, **Notices are sent to violators** to encourage them to comply. In 2021, due to the amount of rainfall this past year, the lawns remained green until the end of September and early October, and there was 1 violator reported to us.

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

115 DELAFIELD STREET
WAUKESHA, WI 53188-3615

Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail: contactus@waukesha-water.com

For Immediate Release

Press Release

May 2021 - With the arrival of warmer weather, the Waukesha Water Utility would like to remind city residents of the annual Sprinkling Ordinance in effect from May 1st – October 1st.

Odd-numbered street addresses may water on Tuesdays and Saturdays prior to 9 a.m. or after 5 p.m.

Even-numbered street addresses may water on Thursdays and Sundays prior to 9 a.m. or after 5 p.m.

A hand-held watering can, container, or hose may be used at any time to water gardens, trees, or shrubs, but only if the water device is utilized manually and not left unattended.

The City developed the sprinkling ordinance as part of an ongoing water conservation program. Additional water conservation is needed to protect local water resources and reduce demand during peak hours. The City is requiring customers to refrain from watering during daytime hours, when up to 40% of the water applied by a sprinkler can be lost to evaporation.

To help with the sprinkling, a $20 rebate for rain barrels is available for Waukesha Water Utility customers.

For additional information on the sprinkling ordinance and rebates, please visit the Water Utility's website at www.waukesha-water.com/conservation.html or phone the Utility at (262) 521-5272.

Sprinkling Ordinance Press Release

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

115 DELAFIELD STREET
WAUKESHA, WI 53188-3615

Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail: contactus@waukesha-water.com

Re: Sprinkling Violation at

Dear Water Utility Customer:

It has been observed that you have been sprinkling at your property during unauthorized periods, specifically on

Conservation Ordinance #20-06, Chapter 13.11 of the City Municipal Code was passed by the Waukesha Common Council in April 2006 which restricts the days and times for outdoor water sprinkling. These restrictions are in effect Annually from May 1st through October 1st, and are as follows:

> Addresses ending with an Odd Number may water on Tuesdays and Saturdays, before 9:00 a.m. or after 5:00 p.m.
>
> Addresses ending with an Even Number may water on Thursdays and Sundays, before 9:00 a.m. or after 5:00 p.m.

Please adjust your sprinkling times to coordinate with the days and times that are applicable to your address; and please adjust your sprinklers so that they are not watering the sidewalks or driveway.

Enclosed is a brochure to help answer any questions you may have. If you would like additional information, please contact the Waukesha Water Utility at 262-521-5272.

We appreciate your prompt response and your assistance in helping protect and maintain our water supplies for the future.

Sincerely,

WAUKESHA WATER UTILITY
Customer Service

Violation Letter

Waukesha Water Utility
Serving Waukesha Since 1886

Department Home | Customer Service | New Water Supply Program | Utility and Commission | Conservation

Sprinkling Ordinance

City Ordinance 13.11 applies to all customers in Waukesha and is in effect from May 1 to October 1 each year.

Sprinkling Tips

- Established lawns need only one inch of water per week.
- Place a tuna can or small container outside to measure this amount.
- Set a timer as a reminder to move sprinklers.
- Water before 8:00 a.m. - this will limit the amount of water lost to evaporation.
- Avoid watering at night - this will reduce the chance of lawn diseases.
- Raise your lawn mower blade to at least three inches, or to its highest level - this will provide protection to the roots and allow moisture to remain in the soil.
- Avoid over fertilizing - fertilizers increase the need for water.
- Purchase a slow release, water-insoluble form of nitrogen for your fertilizing needs.
- Do not water on windy days.
- Position sprinklers to avoid watering the roof, driveway, sidewalk, or street.
- Use sprinklers that have larger holes - water evaporates faster with sprinklers that spray a fine mist.
- Use drip irrigation systems for plants, trees, shrubs, and vegetable gardens. Or use soaker hoses but turn them upside down (so that holes are on the bottom). This will also help prevent evaporation.

Sprinkling Ordinance & Tips Posted on the Website

4. Landscape Irrigation System Ordinance

In May of 2015, the Utility adopted an Ordinance to ensure that all Landscape Irrigation Systems in the City of Waukesha are designed, installed, maintained, altered, and operated in a manner that prevents the waste of water, promotes the most efficient usage of water, controls erosion, and applies the minimum amount of water required to maintain healthy individual plants. The ordinance can be found at:

http://waukesha-water.com/downloads/PressReleases/Irrigation_Ordinance_Final_10_15_15.pdf

In addition to conservation minded landscape design, the Ordinance mandates the use of a WaterSense labeled controller, which can save a home between 30-50% on its summer water bills, and reduces landscape run off by as much as 71%.

The City's Inspector's office performs the plan review, issues the permit, and retains the records surrounding the installation of the systems. The Utility educates the public about the Ordinance and provides the Inspector's office with the permitting forms.

In 2021, there were 3 permits issued.

Copies of the application, instructions and contractor certificate can be found on the next pages.

CITY OF WAUKESHA
DEPARTMENT OF COMMUNITY DEVELOPMENT- BUILDING INSPECTION
201 DELAFIELD STREET * WAUKESHA, WI 53188 * (262) 524-3530

PERMIT NO: _____

APPLICATION FOR IRRIGATION SYSTEM PERMIT

Owner _____ Phone _____

Address _____

Job Address (if different) _____

Contractor _____ License (if applicable) _____

Address _____ Phone _____

SYSTEM DESCRIPTION

__Single Family __2 Family __3 Family __Multi Family __Commercial __Industrial __Public

Fixtures	Type	Quantity
Backflow Preventer	Annual Inspection Required Y N	
Irrigation Controller	WaterSense Labeled Y N **Provide Cut Sheet**	

Estimated System Cost _____

_____ _____
Signature of Applicant Date

The nonrefundable permit fee of $50.00 and the applicable plan review fee per approved fee schedule was collected, and the permit is hereby approved.

_____ _____ _____
Signature Title Date

White Copy – Contractor Yellow Copy – Owner Pink Copy – City of Waukesha, Building Inspector

This form is also available online at http://www.ci.waukesha.wi.us/dept/building/FORMS.htm

P:\Conservation\2015\Irrigation Plumbing Ordinance\Permit 10 15 15.docx8/12/15

Application for Irrigation System Permit

CITY OF WAUKESHA
DEPARTMENT OF COMMUNITY DEVELOPMENT- BUILDING INSPECTION
201 DELAFIELD STREET * WAUKESHA, WI 53188 * (262) 524-3530

INSTRUCTIONS FOR IRRIGATION SYSTEM PERMIT

City of Waukesha Ordinance 19.175 requires that a permit be issued before an irrigation system may be installed, materially altered, or completely replaced. The purpose of this ordinance is to require all irrigation systems to be installed, materially altered, or completely replaced in a manner that is consistent with the City's water conservation goals. Systems shall prevent the waste of water, control erosion, promote the most efficient use of water, and apply the least amount of water that is required to maintain healthy individual plant material.

The Ordinance, available at http://www.ci.waukesha.wi.us/web/quest/chapter19 , outlines the features required of irrigation systems, and the procedures required when the system is turned over to the owner.

A permit must be issued before the work commences.

The contractor shall prepare an irrigation plan to scale for each site where a new irrigation system will be installed or altered. Plans shall:

1. Be drawn to scale and indicate the scale used.
2. Include the name and dated signature of the designer.
2. Designate the location of the parcel.
3. Depict both areas to be and not to be irrigated within the parcel.
4. Reveal the major physical features and boundaries of the areas to be watered.
5. Indicate the location and type of each:
   - water source, backflow prevention device, controller, sensor, and electrical splice.
   - water emission device, including, but not limited to, spray heads, rotary sprinklers, quick couplers, bubblers, drip, or micro sprays.
   - valve, including but not limited to, zone valves, station solenoid valves, automatic master valve, and isolation valve.

Back flow preventers are required to be installed by licensed plumbers.

All systems subject to the ordinance must include a WaterSense labeled Irrigation Controller. A list of controllers is available at http://www.epa.gov/watersense/product_search.html?Category=5. A cut sheet of the controller must be submitted with the application.

The permit fee is due at the time of application and is nonrefundable.

The application must be submitted to Building Inspection. The review may take as many as 10 business days before a permit can be issued.

Upon completion of the system, the Contractor must review the Contractor Certificate specified in the ordinance and secure the owner's signature. A copy of the signed Contractor Certificate shall be sent to the Department.

Failure to follow these instructions subjects the violator to the fines specified in the ordinance.

This form is also available online at http://www.ci.waukesha.wi.us/dept/building/FORMS.htm

P:\Conservation\2015\Irrigation Plumbing Ordinance\Permit 10 15 15.docx8/12/15

CITY OF WAUKESHA
DEPARTMENT OF COMMUNITY DEVELOPMENT- BUILDING INSPECTION
201 DELAFIELD STREET * WAUKESHA, WI 53188 * (262) 524-3530

PERMIT NO: _____

IRRIGATION SYSTEM
CONTRACTOR CERTIFICATE

Within 30 days of completion of the installation of the System, the Contractor shall:

- complete and deliver this signed and dated Certificate to the Owner
- deliver a fully signed copy to the Department

I, _____, installed an Irrigation System installed at
Name of Contractor

_____, and certify that I have:
Installation Address

✓ (Check those that apply)

☐ Installed the System in accordance with all applicable ordinances, statutes, codes, rules and regulations; confirmed the correct operation of the entire System; and confirmed that the System has been installed substantially according to the Irrigation Plan and all terms and conditions of the permit.

☐ Provided the Owner with a copy of the Irrigation Plan indicating the System, as built.

☐ Performed a final walk-through with the Owner to explain the operation of the System.

☐ Supplied the Owner with the manufacturers' manuals for the controller and other components of the System.

☐ Supplied the Owner with a list of System components that require maintenance, and the recommended frequency for maintenance.

☐ Informed the Owner of their responsibility to drain the System before November 1st of each year.

_____ _____
Contractor's Signature Date

_____ _____
Owner's Signature Date

White Copy – Contractor Yellow Copy – Owner Pink Copy – City of Waukesha, Building Inspector

This form is also available online at http://www.ci.waukesha.wi.us/dept/building/FORMS.htm

P:\Conservation\2015\Irrigation Plumbing Ordinance\Permit 10 15 15.docx8/12/15

Irrigation System Contractor Certificate

5. **<u>Sewer Ordinance Change</u>** (Sprinkling Credit Meters)

In 2016, Waukesha's Sewer Credit Meter Ordinance was revised to better support Waukesha's water conservation efforts. Prior to the Ordinance change, customers who had a sewer credit meter could have their wastewater charges reduced by the amount of water used outdoors.

However, in order to eliminate water use activities that are considered non-essential, such as outdoor water use, the Utility decided to phase out sewer credit meters. Sewer credit meters installed prior to December 31, 2016, will expire seven years from the date they were installed, and they will no longer receive a credit.

In 2021, the Utility mailed letters to 36 customers who reached their 7 year phase out period. These letters informed customers that their sewer credit will be discontinued. There are 70 residential sewer credit accounts remaining.

A copy of the letter is shown on the following page.

Waukesha Water Utility
P O Box 1648
Waukesha, WI 53187-1648
SERVING WAUKESHA SINCE 1886
Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail: contactus@waukesha-water.com

January 27, 2021

RE: **Sewer Credit Ordinance Change**

Dear :

The City updated its Sewer Credit Ordinance to sunset the use of sewer credit meters. The ordinance was changed to ultimately support the Water Utility's water conservation efforts, but also, to allow customers to recover the cost of buying and installing a sewer credit meter. On average, a homeowner is able to recover these costs in seven years.

You are being contacted as the related meter on your property has been in use for seven years.

You have until **March 10, 2021**, to provide a final reading from your sewer credit meter. That reading will be used to calculate the last sewer credit that you are entitled to. You may send in a meter card or phone in a reading.

The sewer credit meter is customer owned but does not need to be removed. The Water Utility will "disconnect" the meter in our records. As a result, your bill will no longer be reduced by the value of the water that passes through your sewer credit meter.

Please keep in mind that Waukesha's water conservation program is an important factor leading to its ability to secure water from Lake Michigan. This change is aimed at reducing water use for activities that are considered non-essential.

We understand how these changes affect you. Please consider changing how you use the water that was passing through your sewer credit meter.

If you have any questions about the sewer credit meters or would like information about our conservation rebates or Irrigation Only rates, please contact the Utility at (262) 521-5272.

Thank you,

Waukesha Water Utility

Copy of the Letter Sent to Customers
Who Are No Longer Going to Receive a Sewer Credit

6. My Brown Lawn is Green Yard Sign Campaign

Furthermore, the Utility continues to encourage customers to let their lawns go dormant. Large colorful lawn signs, designed by a local artist, are available free of charge to customers who wish to demonstrate their commitment to water conservation. The signs serve to acknowledge those who are conserving and to encourage their neighbors to do the same. A sample of the lawn sign is below.

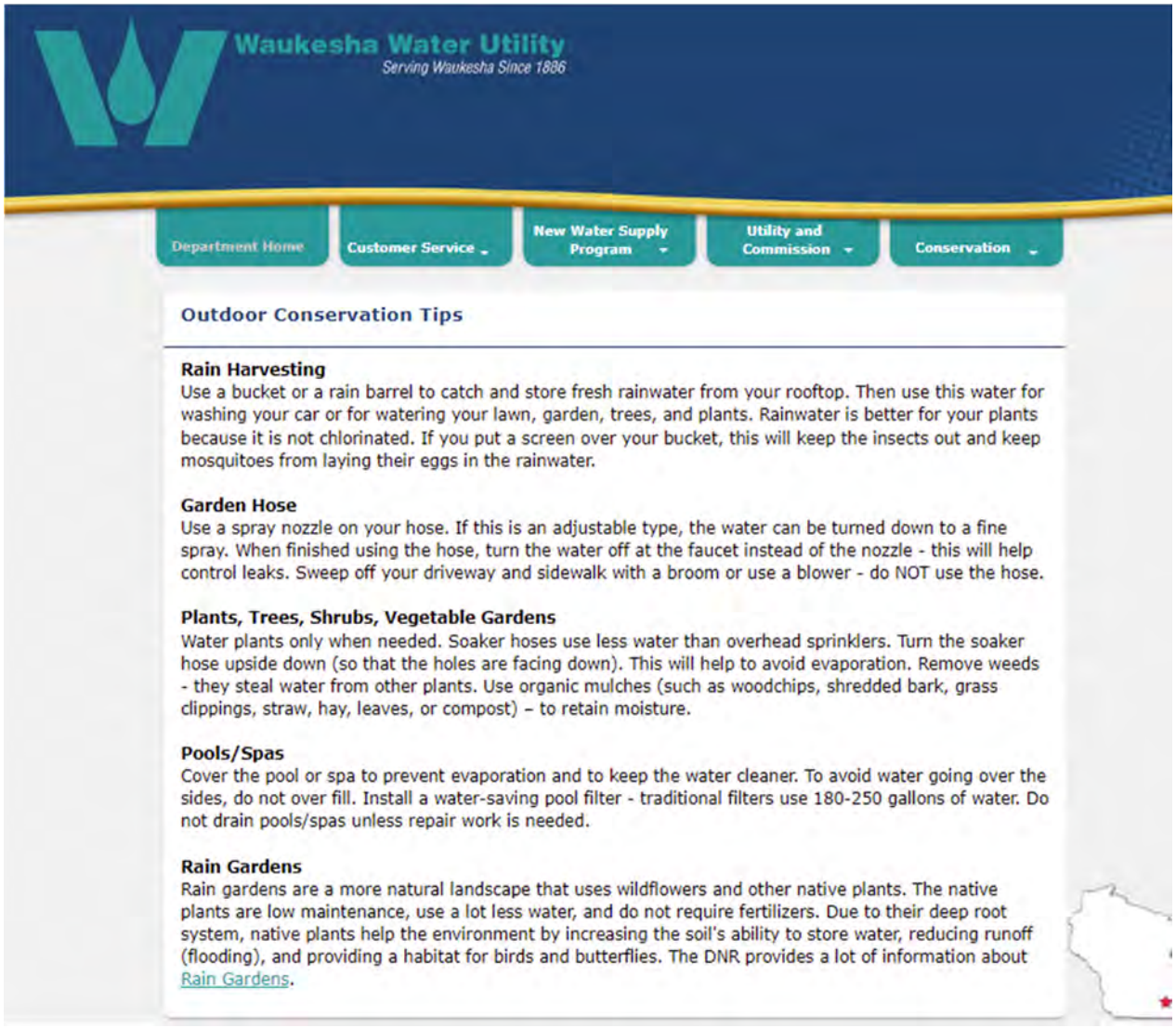
7. Rain Barrel Promotion Program

Waukesha Water Utility used to promote the Waukesha School District's and Waukesha County's rain barrel sales program. However, since rain barrels have gained popularity and can be purchased at local hardware stores etc., the School District and the County have decided to stop making rain barrels.

The Utility will continue to promote the use of rain barrels with bill messages, in the City's Activity Guide (as shown in the education section), at outreach events, and any time a customer calls and requests information.

8. Outdoor Conservation Tips

Waukesha Water Utility has outdoor conservation tips on its website. As seen below, the topics covered are the following: Rain Harvesting, Garden Hose, Plants/Trees/Shrubs/Vegetable Gardens, Pools/Spas, and Rain Gardens.



Outdoor Conservation Tips on Website

These 8 Tools Are Working

The information below indicates that Waukesha uses, on average, much less water in the summer now than it did before these eight tools, previously mentioned, were put into place. We have effectively reduced our peak demands, even during the extreme drought conditions of 2012.

Gallons Pumped, during the summer months of 2021, was at a fifteen year low.

Summer Volumes as a Percent of Total Gallons Pumped

Year	Waukesha Pumpage			Brookfield Pumpage			Oconomowoc Pumpage			Pewaukee Pumpage		
	Annual (000's)	Summer (000's)	Summer as a % of Total	Annual (000's)	Summer (000's)	Summer as a % of Total	Annual (000's)	Summer (000's)	Summer as a % of Total	Annual (000's)	Summer (000's)	Summer as a % of Total
2006	2,623,418	1,175,795	44.8%	1,465,878	738,889	50.4%	673,143	337,035	50.1%	479,448	262,317	54.7%
2007	2,618,461	1,183,827	45.2%	1,368,726	669,849	48.9%	686,683	355,702	51.8%	445,630	232,840	52.2%
2008	2,531,108	1,128,313	44.6%	1,446,256	638,479	44.1%	677,227	337,653	49.9%	473,648	245,615	51.9%
2009	2,479,905	1,109,337	44.7%	1,295,283	653,848	50.5%	676,528	344,909	51.0%	442,530	247,172	55.9%
2010	2,441,221	1,074,691	44.0%	1,272,681	607,443	47.7%	719,994	342,468	47.6%	441,760	219,440	49.7%
2011	2,545,103	1,129,986	44.4%	1,436,548	683,145	47.6%	689,523	329,580	47.8%	480,001	250,294	52.1%
2012	2,527,370	1,187,305	47.0%	1,365,823	714,678	52.3%	751,326	404,770	53.9%	515,842	297,556	57.7%
2013	2,348,655	1,048,020	44.6%	1,376,089	661,420	48.1%	693,971	336,449	48.5%	454,881	237,323	52.2%
2014	2,413,582	1,015,137	42.1%	1,687,514	813,598	48.2%	696,960	337,605	48.4%	435,998	220,317	50.5%
2015	2,213,900	970,596	43.8%	1,373,750	729,687	53.1%	630,635	307,853	48.8%	477,185	248,273	52.0%
2016	2,166,893	962,749	44.4%	1,247,811	624,014	50.0%	589,534	291,165	49.4%	464,850	248,778	53.5%
2017	2,128,111	933,128	43.8%	1,254,510	606,530	48.3%	564,324	270,424	47.9%	464,290	237,116	51.1%
2018	2,068,522	914,652	44.2%	1,252,833	603,142	48.1%	553,523	271,499	49.0%	465,553	236,112	50.7%
2019	2,039,436	902,288	44.2%	1,264,021	597,749	47.3%	549,955	263,935	48.0%	448,268	218,328	48.7%
2020	1,933,288	883,493	45.7%	1,353,088	659,505	48.7%	638,805	322,421	50.5%	495,632	259,293	52.3%
2021	1,923,146	873,172	45.4%	1,380,064	692,322	50.2%	709,503	364,389	51.4%	474,758	256,450	54.0%
Average			**44.6%**			**49.0%**			**49.6%**			**52.5%**

Further support for the efficacy of the Utility's program can be found by comparing its summer water use with its neighbors (who are affected by similar weather conditions). Waukesha uses a lower proportion of water in the summer than does its neighbors.

In addition to the Outdoor programs, the Utility has other conservation programs (for non-residential customers as well as for all customer classes).

9. Pre-Rinsed Spray Valves

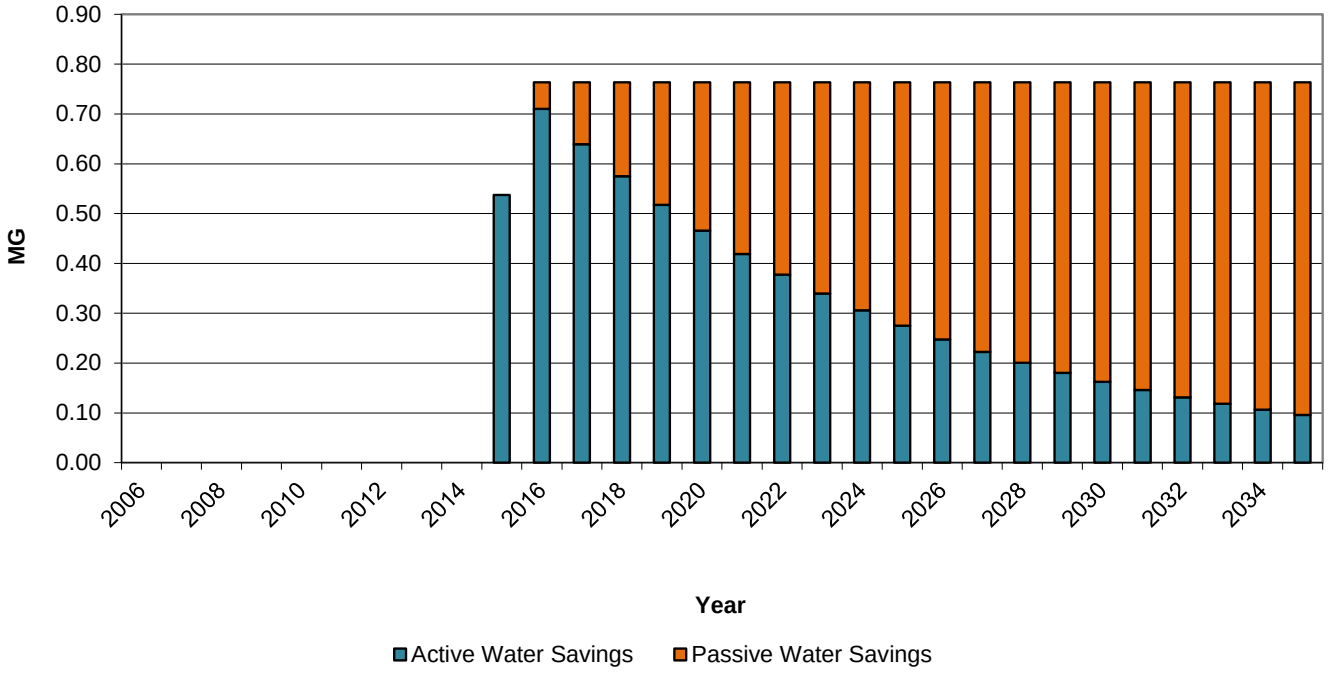
In November 2015, the Utility implemented a conservation initiative for water efficient pre-rinsed spray valves. Pre-rinsed spray valves were offered to large water using customers for free. The spray valves are valued at approximately $150 and maintain good pressure while using 60% less water. The spray valves are endorsed by The Green Restaurant Association, Alliance for Water Efficiency, The Green Building Council, and EPA WaterSense.

In 2021, due to the pandemic, the Utility staff did not go into any establishments to change out pre-rinsed spray valves.

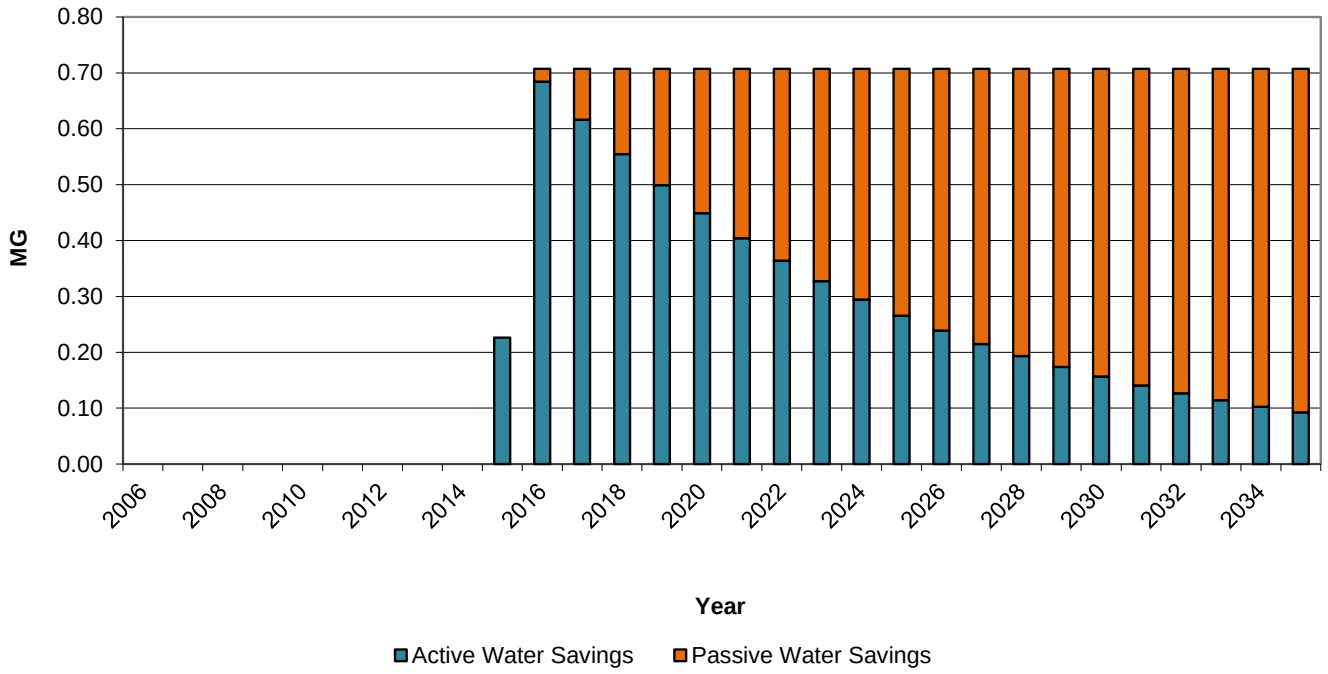
The following page shows the annual cost effectiveness of the program for past activity, along with the projected water savings through 2035, for both commercial and public accounts.

Class	Activity Name	Unit Cost ($/MG)	PV Cost	Unit Benefit ($/MG)	PV Benefit	Avoided Supply	Avoided Wastewater	B/C Ratio
Commercial	CII Spray Rinse Valve Grant (Commercial)	229.76	4,537.00	1,190.52	23,508.94	12,987.75	10,521.19	5.18
Public	CII Spray Rinse Valve Grant (Public)	229.56	1,484.60	1,110.54	7,182.06	3,963.48	3,218.58	4.84

CII Spray Rinse Valve Grant (Commercial) Annual Water Savings

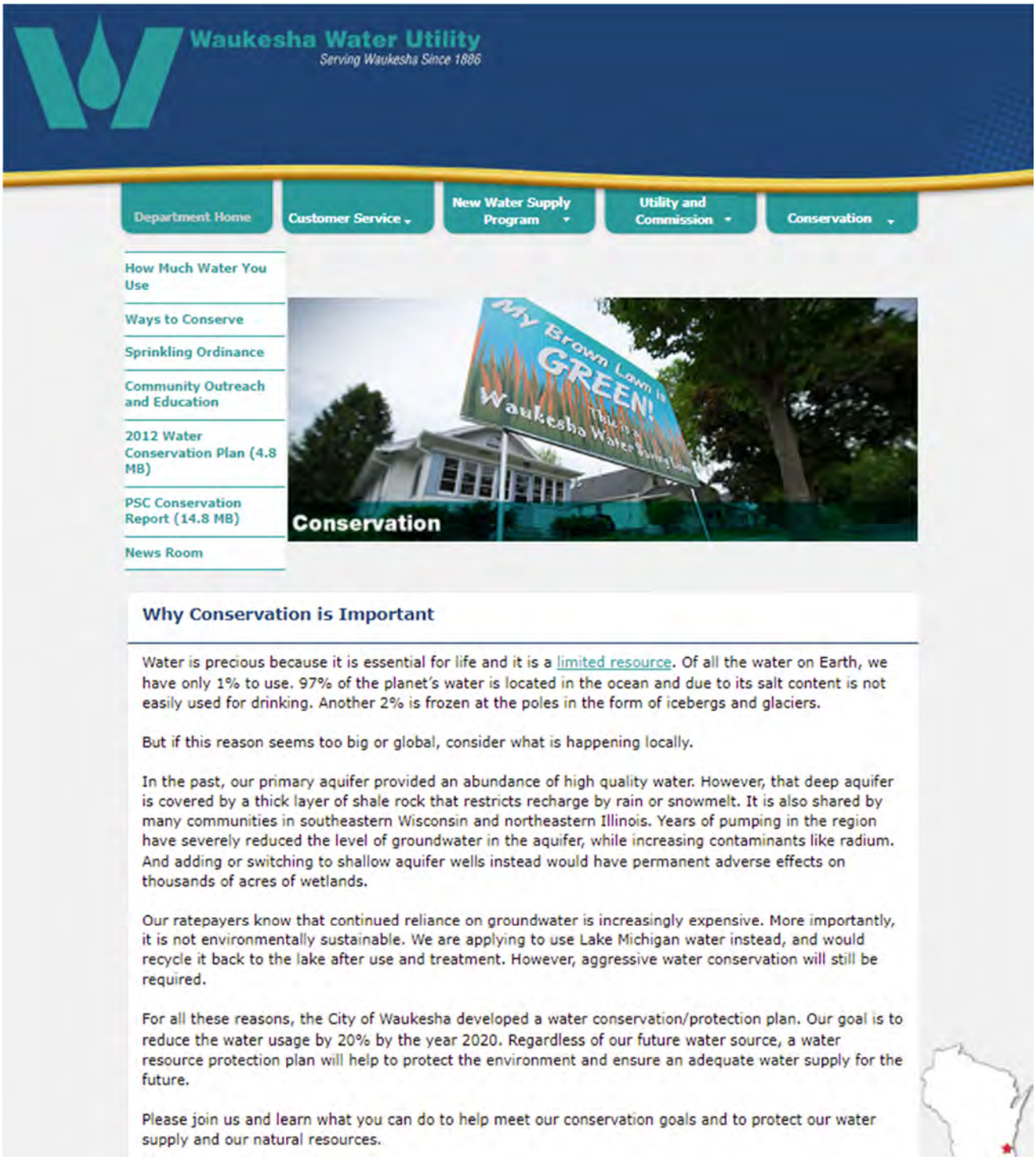


CII Spray Rinse Valve Grant (Public) Annual Water Savings



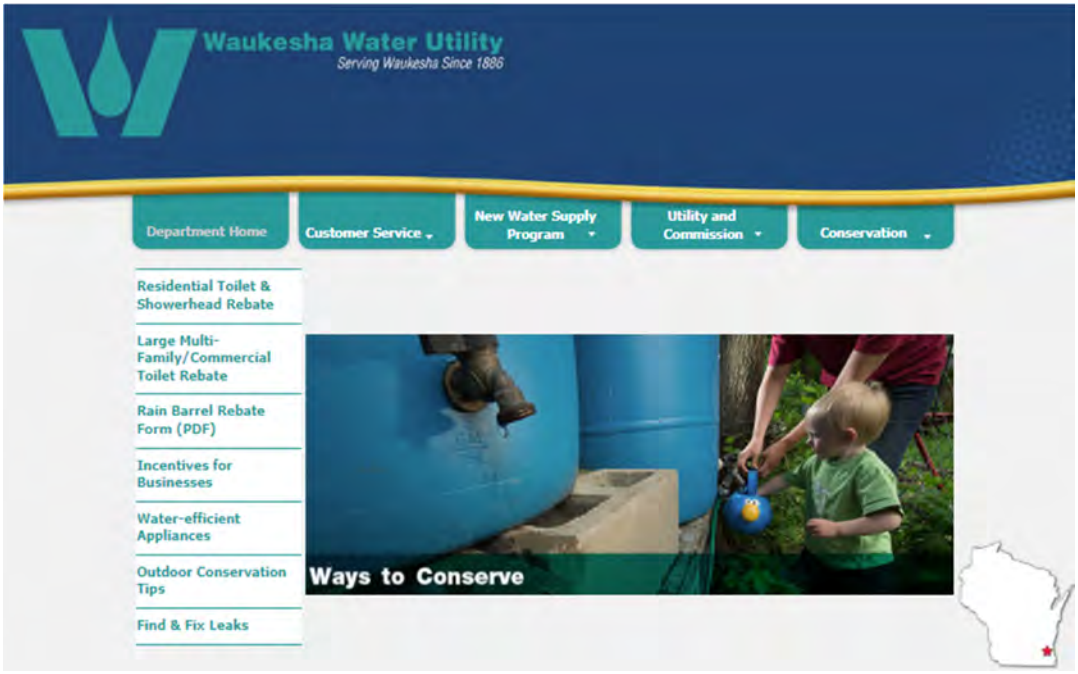
10. Why It's Important to Conserve & Ways to Conserve

There is information on our website, for all customer classes, on "Why It's Important to Conserve" & "Ways to Conserve".

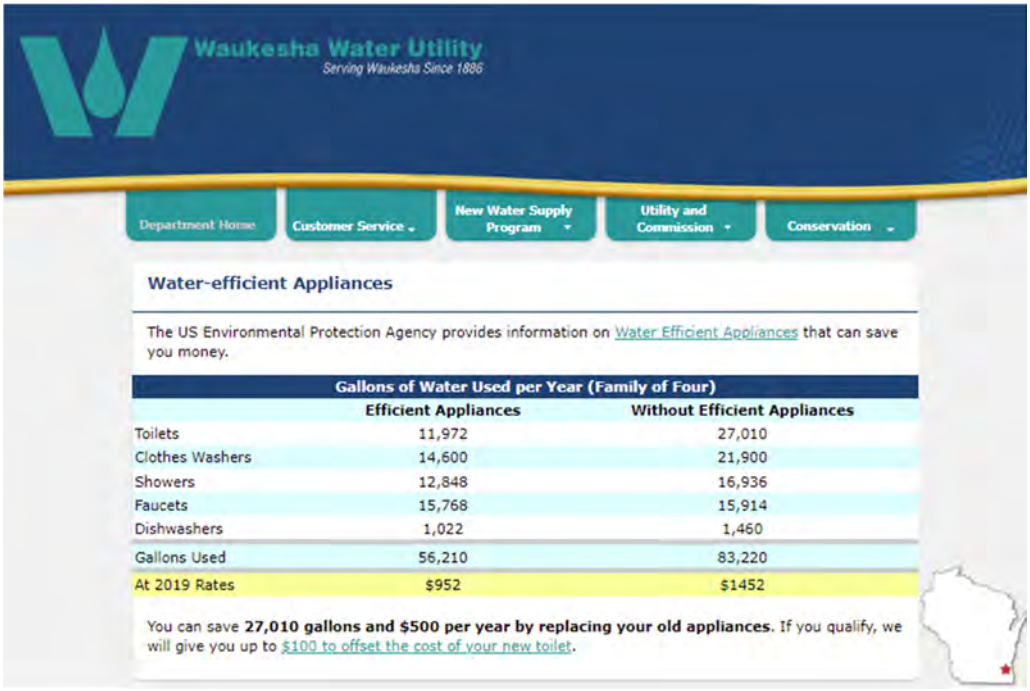


Why It's Important to Conserve on the Webpage

Under the “Ways to Conserve” heading, we talk about the toilet rebate, the incentive for businesses, the sprinkling ordinance, and outdoor conservation tips. All of these topics have been previously addressed. However, there is one more topic that hasn’t been addressed and that is water-efficient Appliances, as also shown below.



Ways to Conserve on Webpage



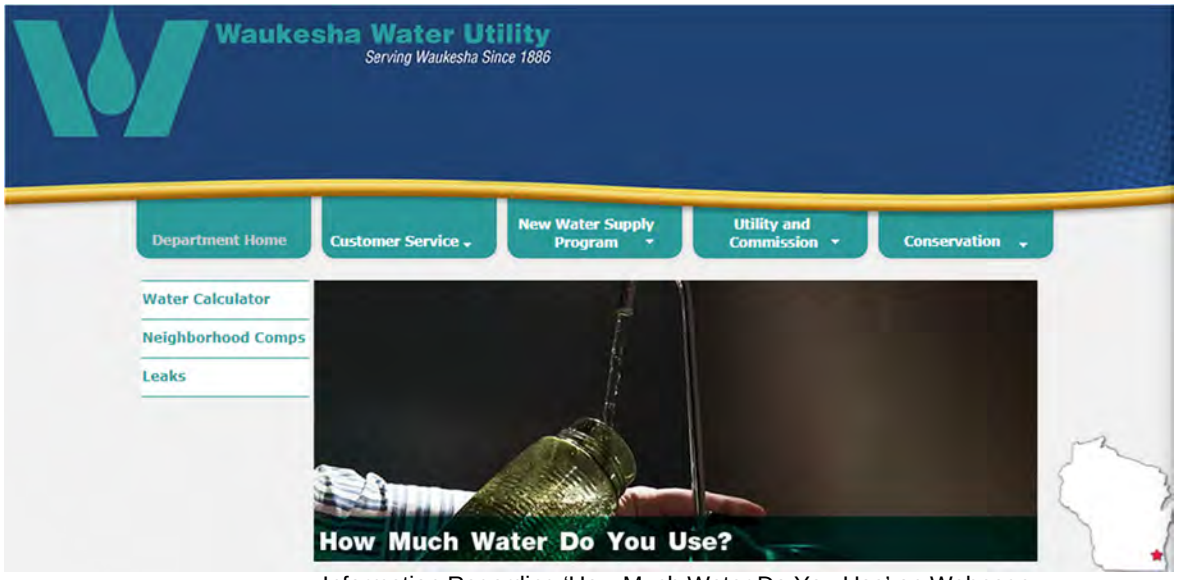
Water Efficient Appliances Webpage

11. How Much Water Do You Use & Things To Do To Lower Your Bill

Other information on our website includes “How Much Water Do You Use?” and “Things to do to Lower Your Bill”.

The headings under the “How Much Water Do You Use” webpage are the following:

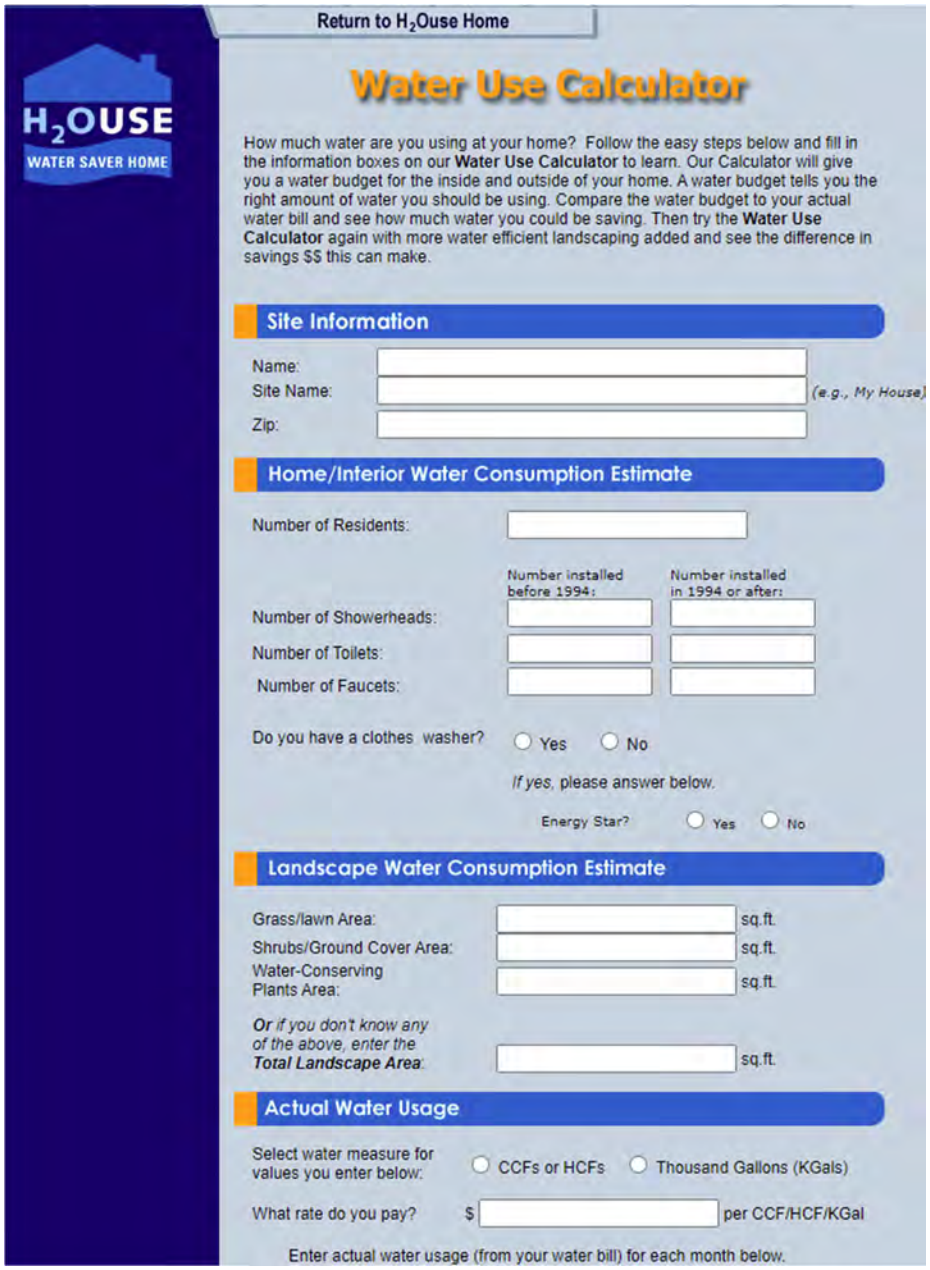
- Water Calculator (as shown on the next page)
- Leaks (please refer to item #12)
- How Your Water Consumption Compares to your Neighbors (please refer to #13)



Information Regarding ‘How Much Water Do You Use’ on Webpage

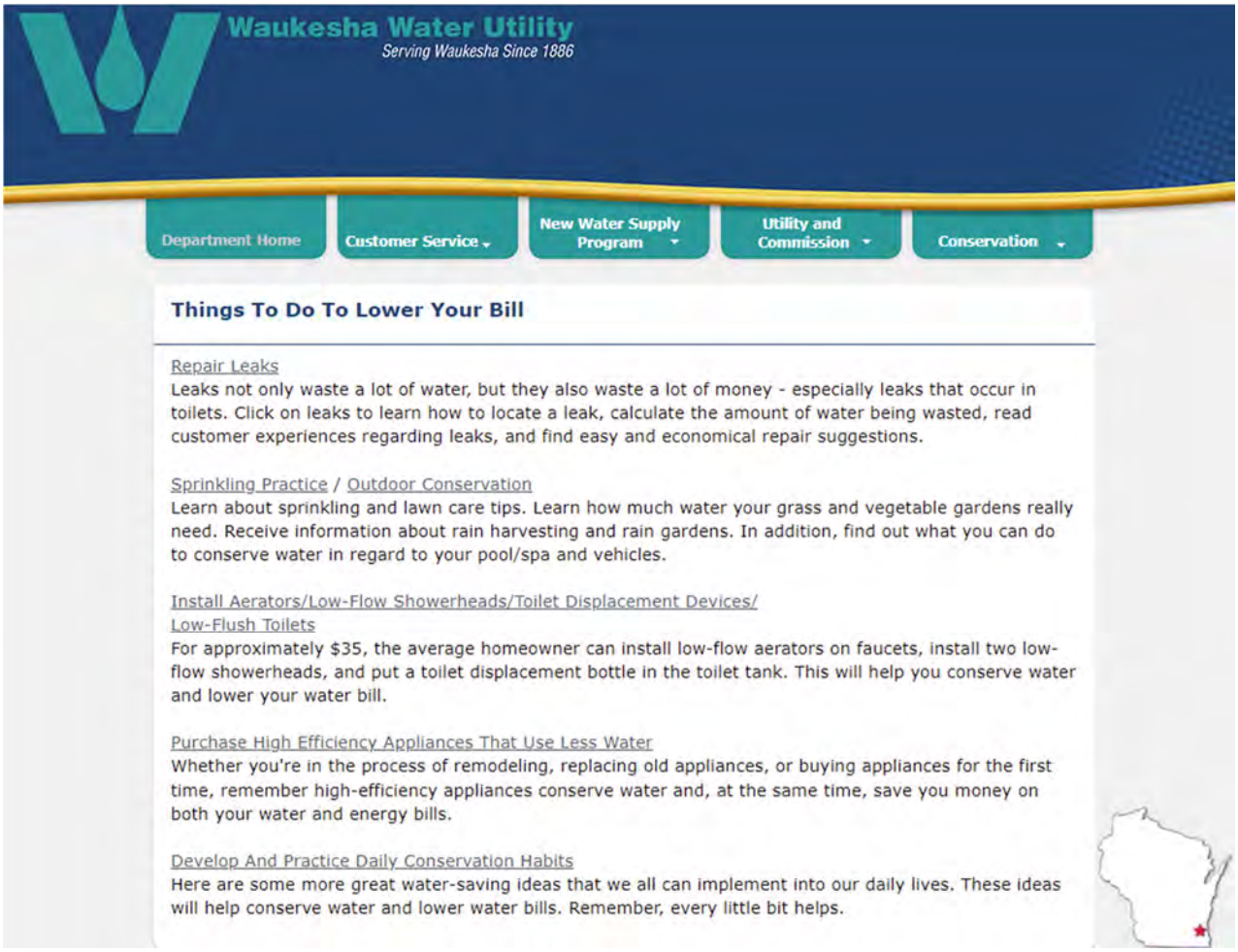
The water calculator links to H_2OUSE Water Saver Water Use Calculator.

This tool calculates how much water is being used vs. how much water would be saved if fixtures, appliances, and landscaping were efficient. The link also compares the actual water bill to what a person could be saving with conservation.

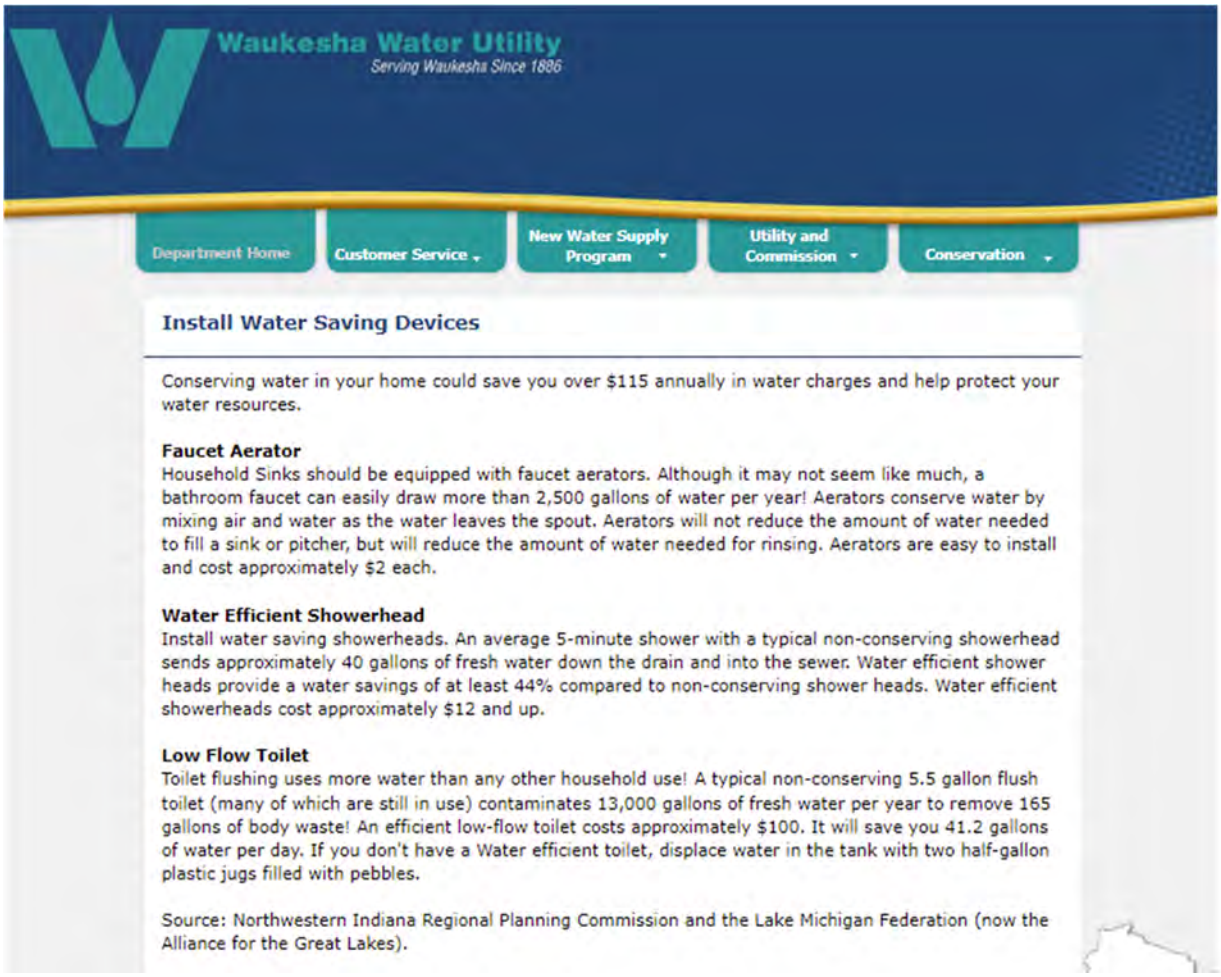


The headings under the “Things to do to Lower Your Bill” webpage are the following:

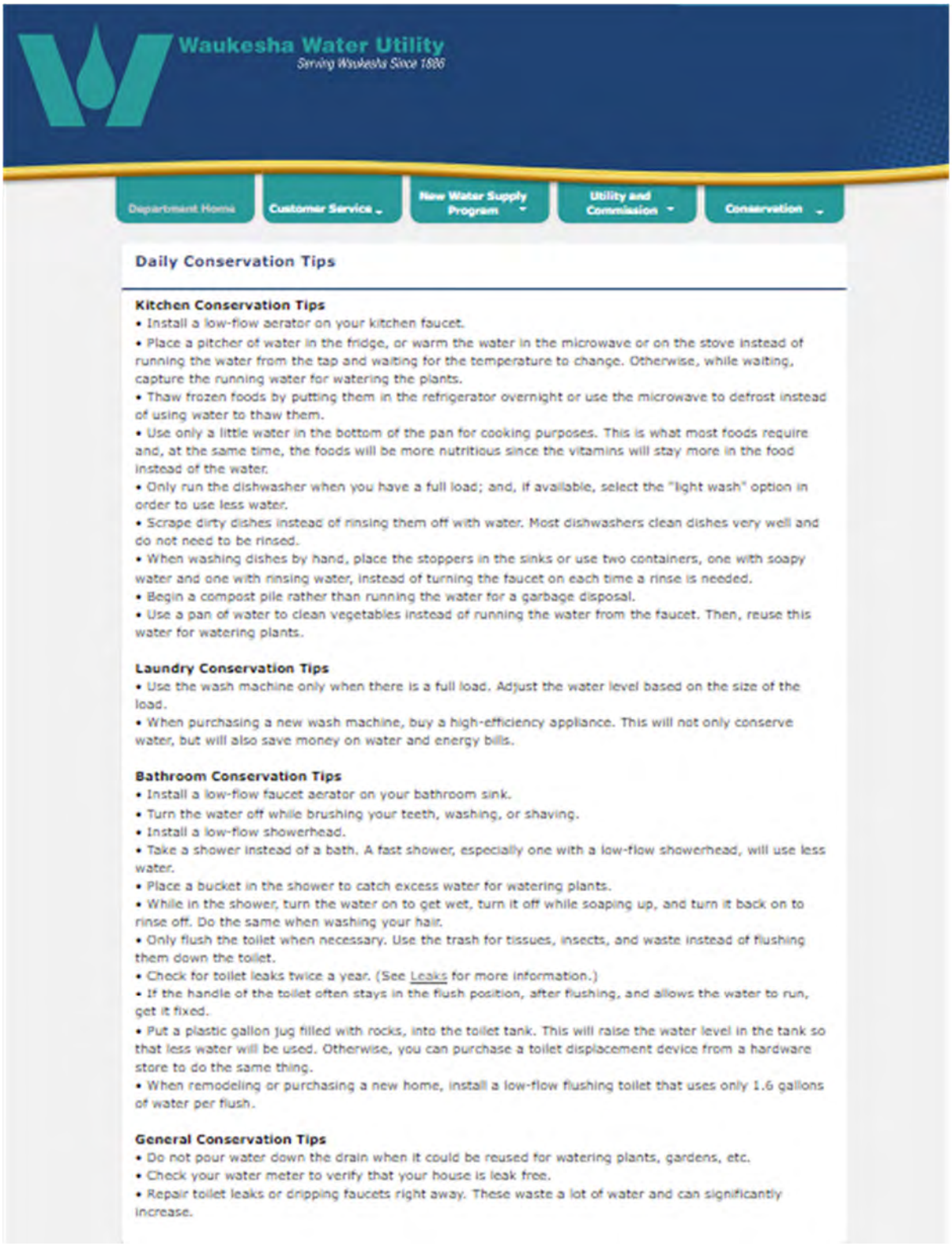
- Repair Leaks (please refer to #12)
- Sprinkling Practice/Outdoor Conservation (which links to the Ordinance & Outdoor Tips – as mentioned previously)
- Install Aerators/Low-Flow Showerheads/Toilet Displacement Devices/Low-Flush Toilets (as shown on the next page)
- Purchase High Efficiency Appliances That Use Less Water (as mentioned previously)
- Develop and Practice Daily Conservation Habits (as shown on two pages from this page)



Information on Things to do to Lower Your Bill on Webpage



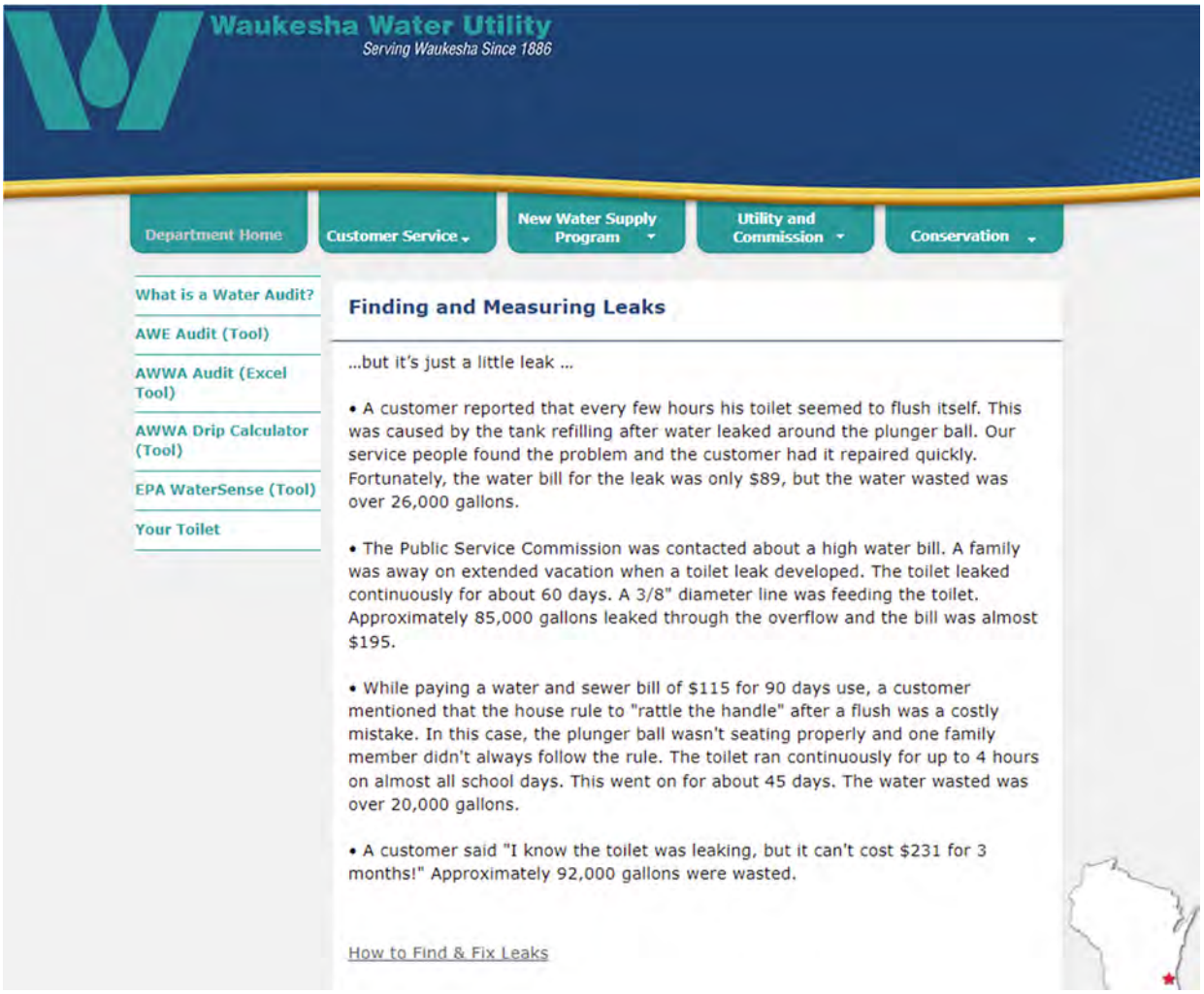
Information on Aerators, High-Efficiency Shower Heads and Toilets on Webpage



Information on Conservation Habits & Tips for Inside the Home on Webpage

12. Program on Finding & Fixing Leaks

The Utility has information on its website to help customers understand the importance of finding and fixing leaks quickly. The information below informs customers on how much water and money can be wasted when it comes to leaks.



Information on website for Finding and Fixing Leaks

Also, the Utility has a link on its website to the Environmental Protection Agency's (EPA) WaterSense site for detailed information on Finding & Fixing Leaks.

Leaks Can Run, but They Can't Hide

Are you ready to chase down leaks? Household leaks can waste nearly 1 trillion gallons of water annually nationwide, so each year we hunt down the drips during Fix a Leak Week. Mark your calendars for EPA's annual Fix a Leak Week, March 14 through 20, 2022—but remember that you can find and fix leaks inside and outside your home to save valuable water and money all year long.

From family fun runs to leak detection contests to WaterSense demonstrations, Fix a Leak Week events happen from coast to coast and are all geared to teach you how to find and fix household leaks. See our Event map at the bottom of this page (or on Facebook EXIT) to find events near you and view past events!

Learn how to find and fix leaks during Fix a Leak Week. It's as easy as 1-2-3.

On This Page:

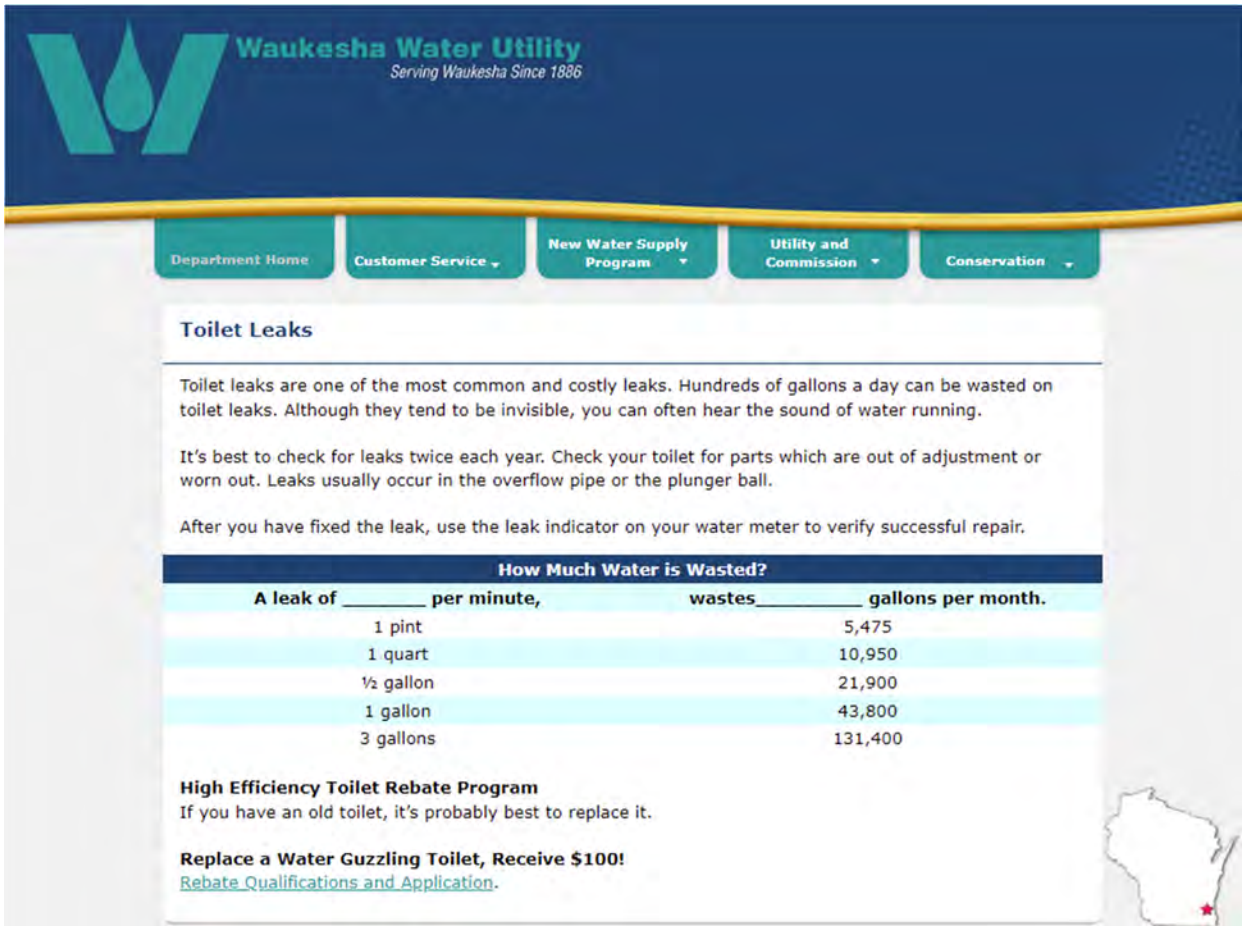
- Checking for Leaks
- Toilet Leaks
- Faucet Leaks
- Showerhead Leaks
- Outdoor Leaks
- In the Workplace

Related Information

- Check our our animated video with Flo EXIT
- Educational resources

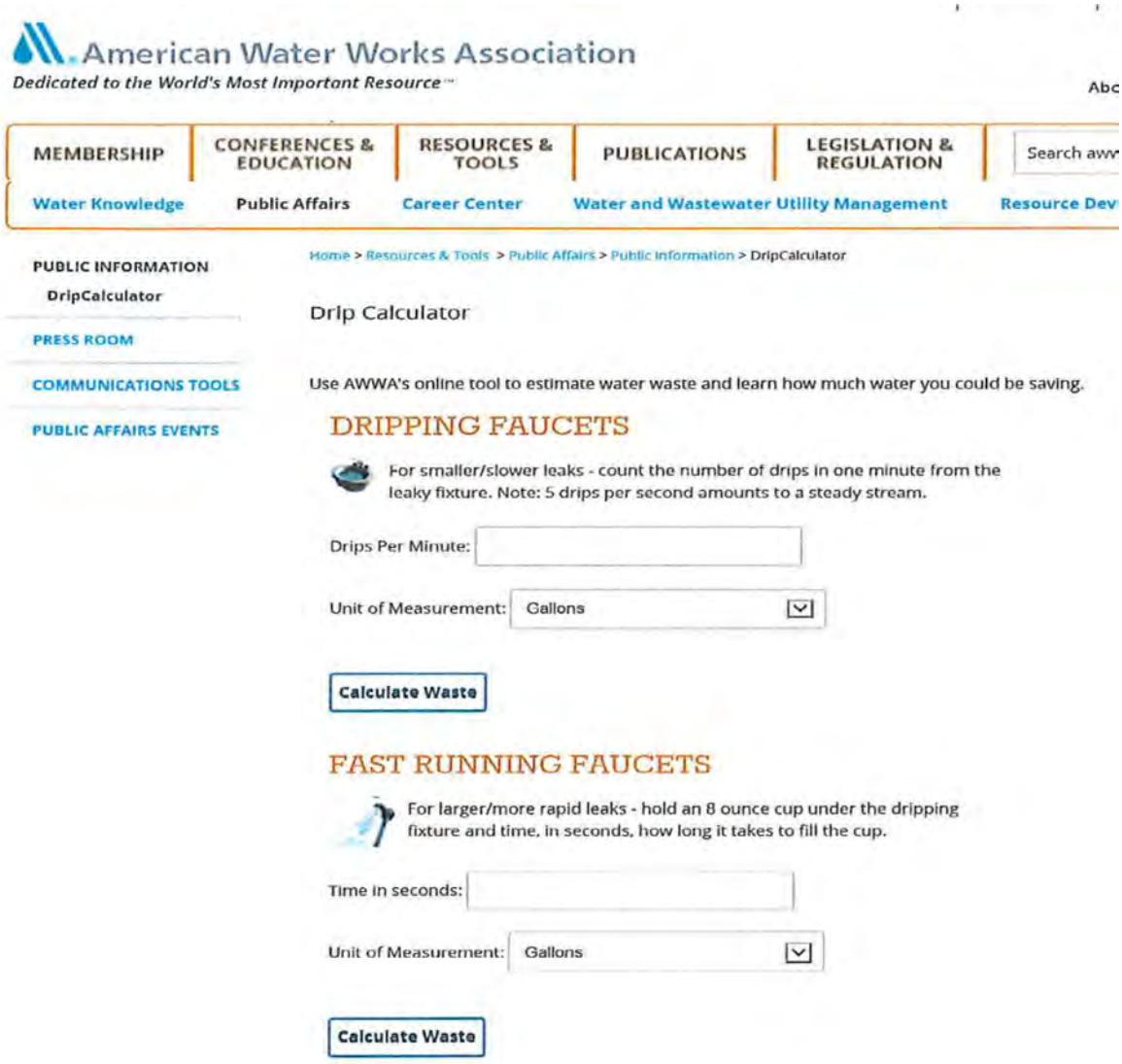
Link to Water Sense Finding and Fixing Leaks

In addition, the Utility's website has information pertaining specifically to toilet leaks (as to how much water is wasted & information on the toilet rebate).



Information on website regarding Toilet Leaks

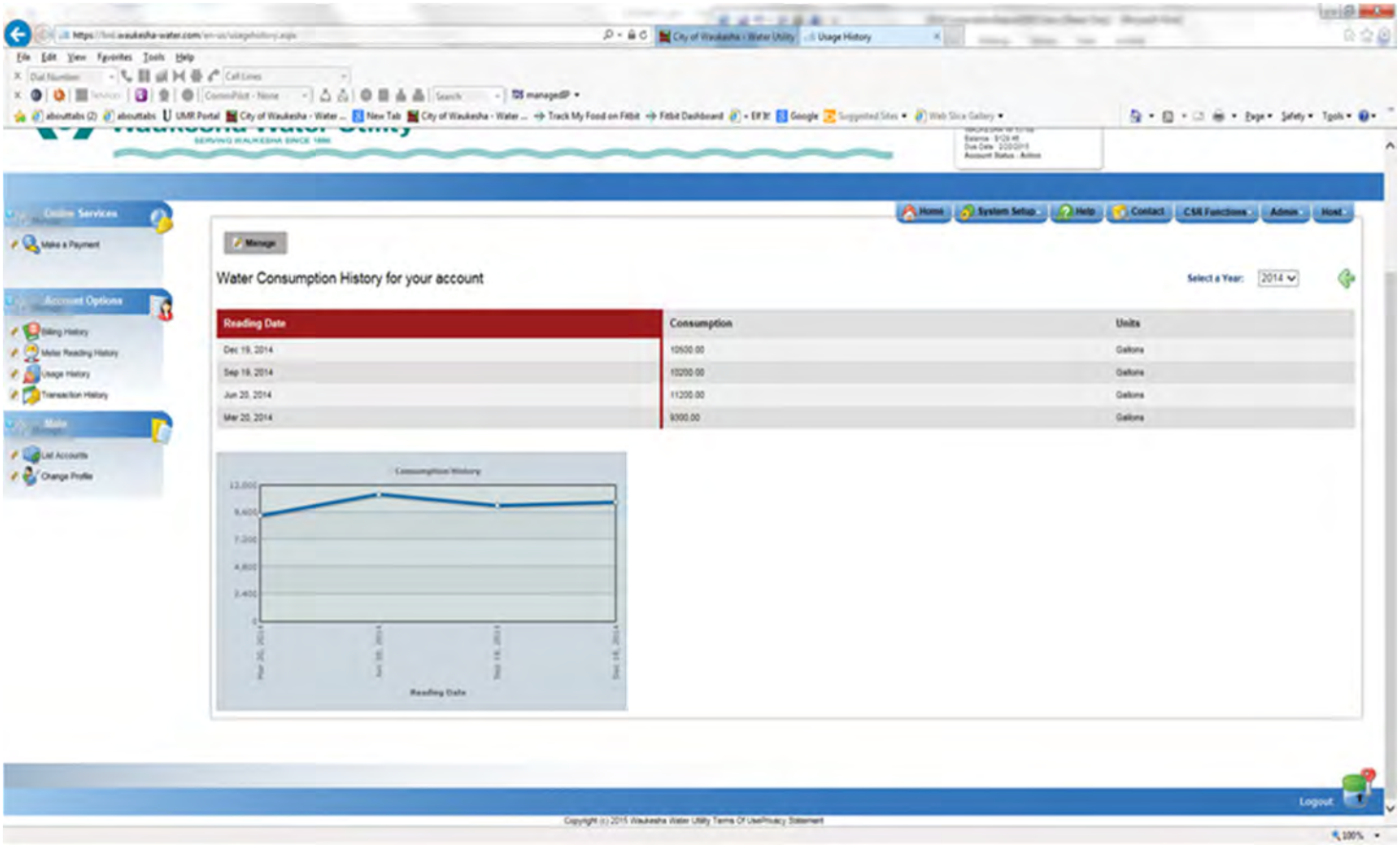
Along with a link to American Water Works Association's (AWWA) drip calculator – to calculate how much water is wasted on dripping and running faucets.



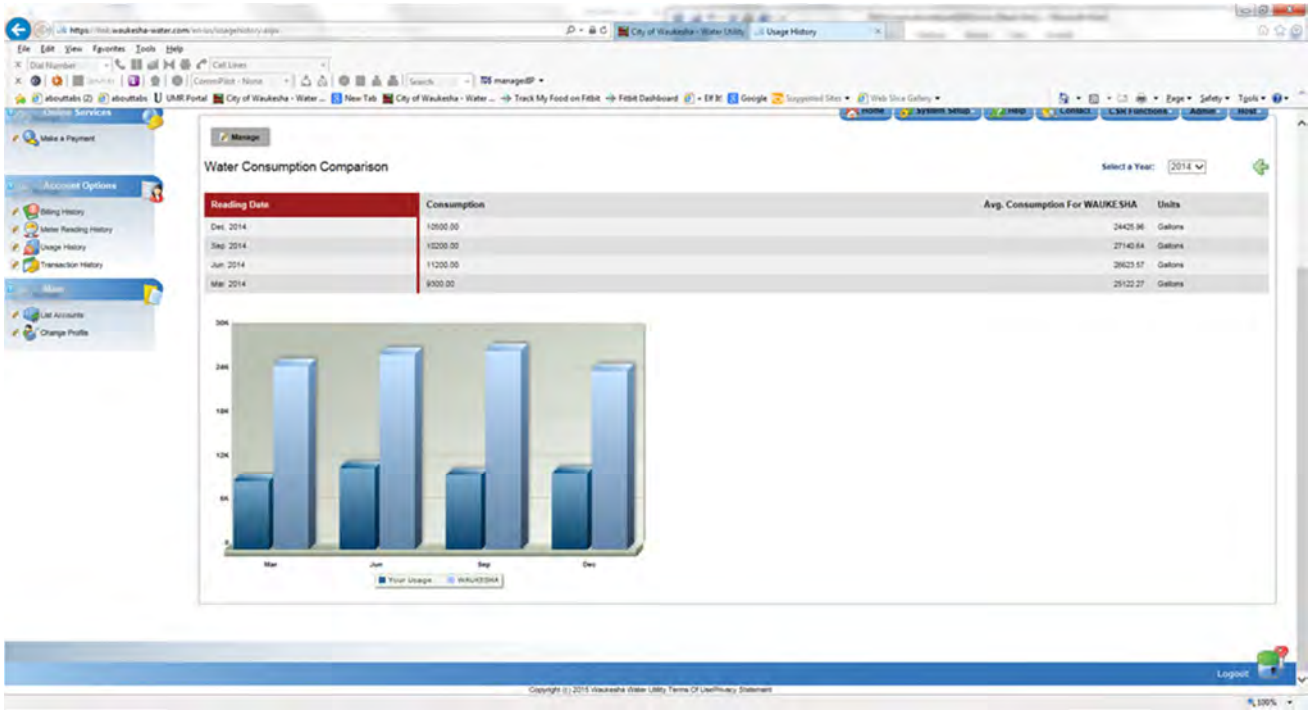
Link to AWWA's Drip Calculator

13. Web Based Consumption History and Comparisons (for all customers)

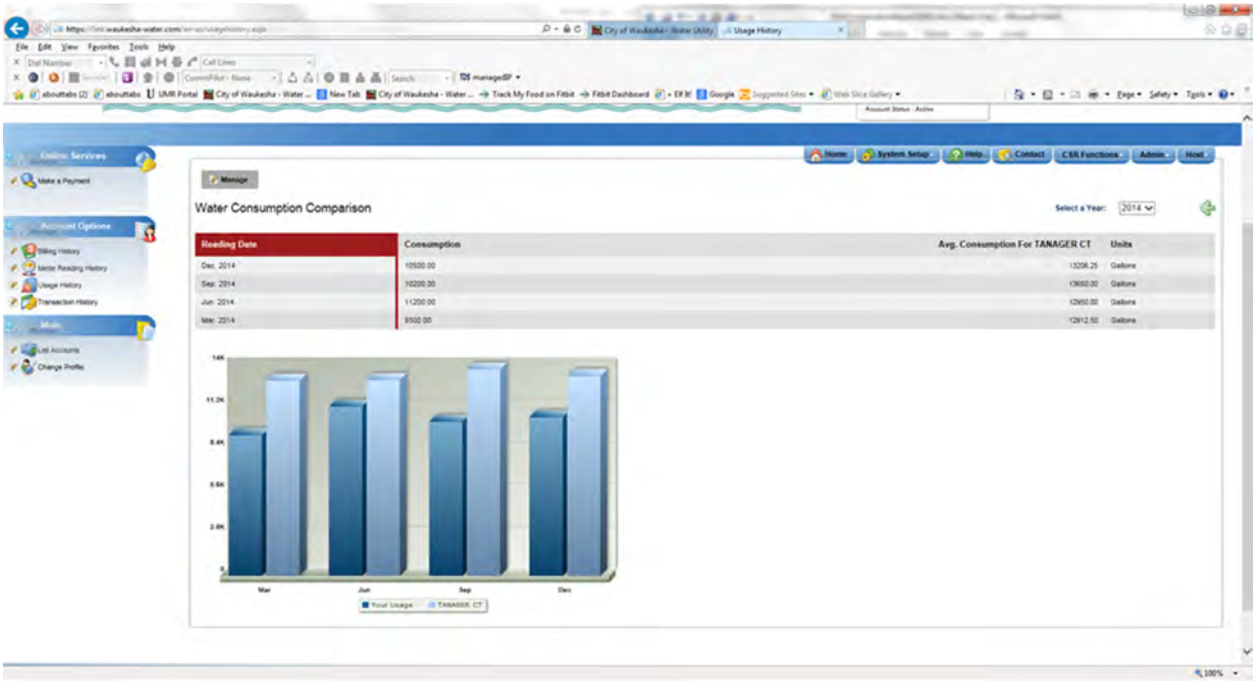
In 2014, the Utility installed Link, a system available to customers to pay their bills online. Integral to Link is the customer's ability to search transaction and consumption history. Now, a customer can compare their consumption across seasons.



They can also compare themselves to the City as a whole,



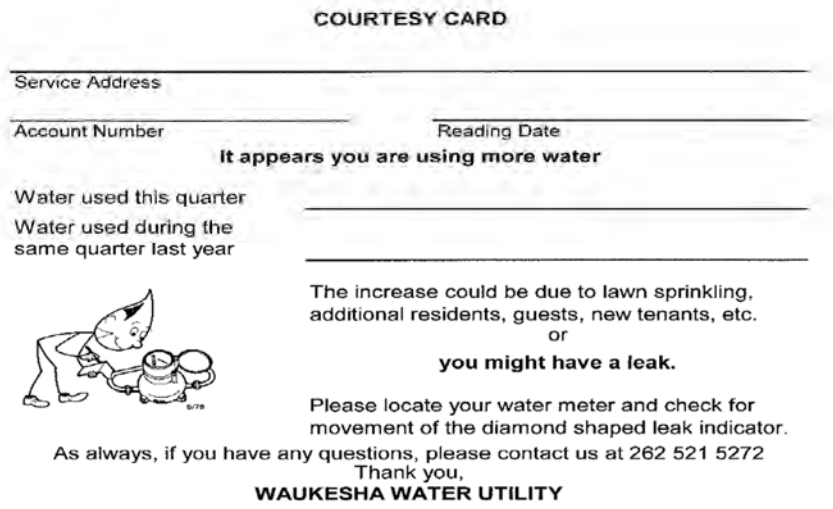
as well as to the neighbors on their street.



The Utility hopes that if a customer sees they are consuming more than their neighbors, they will begin to ask why. While there may be legitimate reasons for higher consumption, for example family size, the consumer may also touch on other habits, and with change, could lead to conservation.

14. Leak Detection & Water Audit Program

Waukesha Water Utility has a leak detection program where our Billing Department runs a Pre-Exception Report. This Pre-Exception report shows the low and high consumptions for possible stopped meters and leaks. For stop meters, our Meter Technicians go to property to check and replace the meter, if needed. For high consumptions, the Utility sends a Courtesy Postcard to notify the customer that they might have a leak; and advises them to check the leak indicator on their meter. A copy of the Courtesy Postcard is shown below.



COURTESY CARD

Service Address

Account Number

Reading Date

It appears you are using more water

Water used this quarter

Water used during the same quarter last year

The increase could be due to lawn sprinkling, additional residents, guests, new tenants, etc.
or
you might have a leak.

Please locate your water meter and check for movement of the diamond shaped leak indicator.

As always, if you have any questions, please contact us at 262 521 5272
Thank you,
WAUKESHA WATER UTILITY

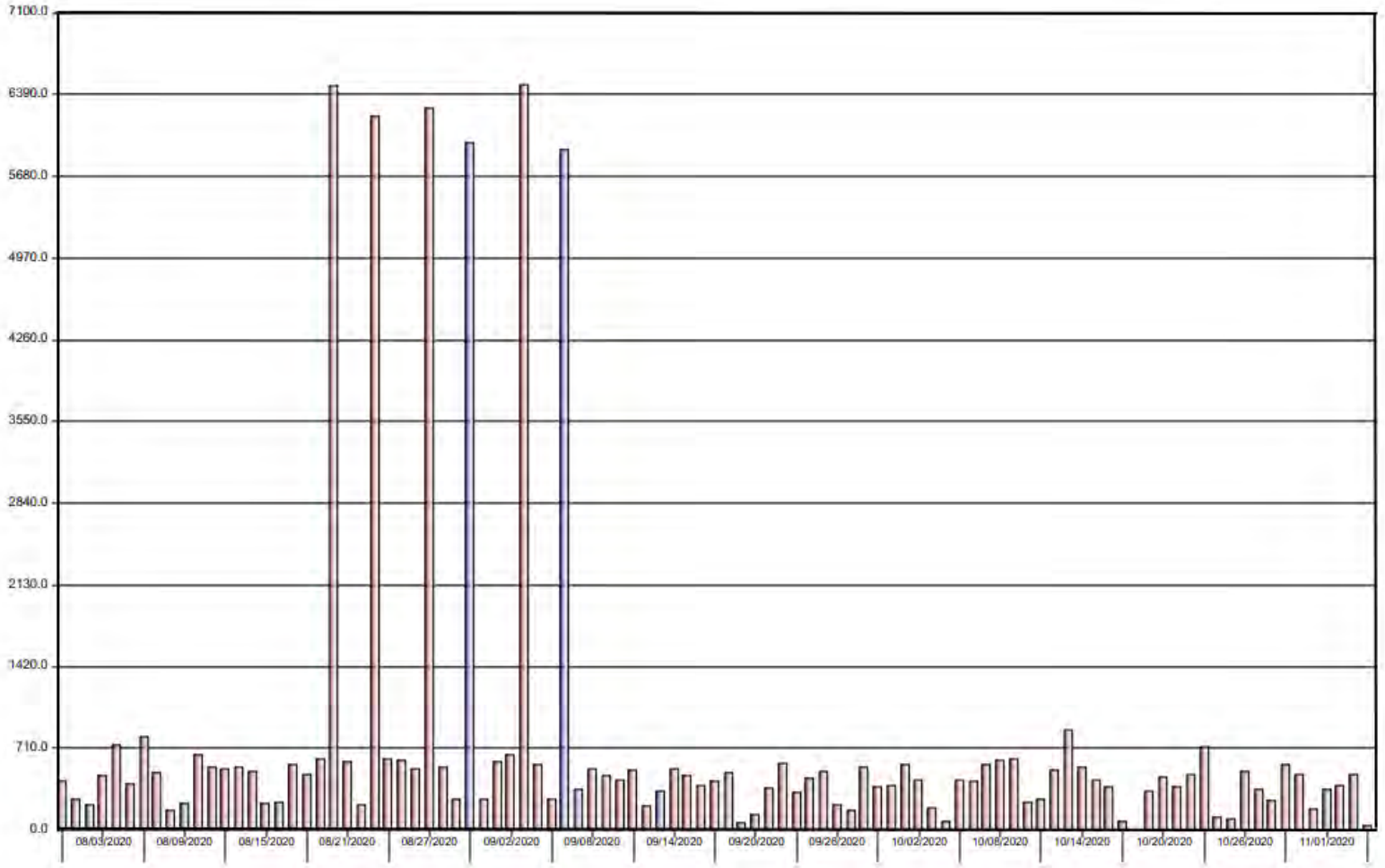
Courtesy Card Notify Customers of a Possible Leak

The Utility normally receives calls from customers after they receive the postcard. When customers call, we explain how to check their meter and toilets, etc. for leaks. Sometimes, customers will request additional help from the Utility to help find the problem.

The Utility will help customers find leaks by either conducting water audits or by running data logging reports. Water audits are conducted for single family homes, duplexes, and triplexes. Data logging reports, that show daily consumptions, are done for large multi-families, commercial, public, and industrial accounts.

In 2021, the Utility conducted 21 residential water audits and 25 data logging reports (12 for residential accounts, 2 for multi-family accounts, 1 for a public account, 9 for commercial accounts, and 1 for an industrial account).

A copy of a data logging report is shown on the following page.



Data Logging Report for a Commercial Customer Account

In addition to the Courtesy Card, Audits, and Data Logging Reports, the Utility has an informational program on its website for customers to conduct their own water audits for residential and non-residential customers; along with links to AWE's Water Audit Process Introduction, and AWWA's Free Water Audit Reporting Tool Kit. (A copy of the information on our website is shown below.)

Finally, any time a customer calls the Utility asking for information or has a high consumption, Waukesha Water Utility is always willing to act as a resource to help its customers.

What is a Water Audit?

Businesses

Saving Water: It's just good business

Using water efficiently is not just good for Waukesha and the environment; it's a smart business strategy. Reducing your water use can save you money on your water, wastewater and energy bills and cut on-site treatment costs. Every business is a little different, but a water audit is an easy way to start.

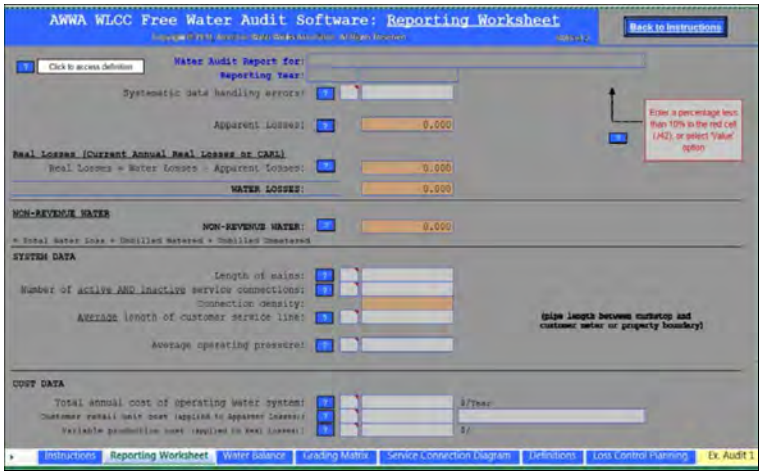
Water audits provide a way to inventory all water uses in your facility and identify ways to increase water use efficiency. The results can help you prioritize steps to implement cost-effective water-saving measures.

- Step One – Gather data such as maps showing locations and equipment where water is used, water bills and consumption data, equipment manuals and so on
- Step Two – Walk through your facility and verify water uses, estimate hours and rate of use, look for leaks and ways to reduce water use
- Step Three – Compare estimated water use with consumption data from water bills
- Step Four – Estimate costs of fixture change-outs, new equipment or new processes and compare with estimated savings for water, wastewater and energy to calculate potential payback period
- Step Five – Prepare a summary of recommended actions and implementation schedule for those actions that make economic sense

More information, see the tools on our website or call the Waukesha Water Utility at (262) 521-5272.

Information on the Utility's Website

A Link to AWE's Water Audit Process



A Link to AWWA's Water Audit Reporting Toolkit

VI. EDUCATION PROGRAMS, OUTREACH EVENTS, YOUTH GROUPS & PARTNERSHIPS

Waukesha Water Utility follows NR 852 Requirements. As a result, several educational programs have been adopted. Section A will highlight how we advertise our current water conservation programs; Section B will focus on community presentations and outreach events; and Section C will concentrate on youth education.

Tools:

The Education Programs use the following communication tools.

[X] Website

[X] GWA's Website Evolution uploaded in 2019 (greatwateralliance.com – an information hub for the Utility's future water supply project that includes information on water conservation)

[X] Bill Stuffers

[X] Local Newspaper

[X] Public Outreach & Community Meetings

[X] School Programs

[X] Other: Street Signs

[X] Other: Yard Signs - Brown Lawn Campaign

[X] Other: Social Media (Twitter & Facebook)

[X] Other: Public Giveaways: Toilet Leak Detection Tablets & Rain Gauges

[X] Other: Brochures

[X] Other: Bill Messages

[X] Other: Non-Residential Giveaways: Pre-rinsed Spray Valves

[X] Other: Customer Service – in person and over the phone

[X] Other: Neptune 12900 V4 radio/data logger

[X] Other: City's Park and Rec Activity Guide

[X] Other: City Interdepartmental Meetings

[X] Other: Public Service Announcement (TV 25)

[X] Other: Great Water Alliance's Newsletter

[X] Other: City of Waukesha's Electronic Newsletter

[X] Other: City of Waukesha's Department of Public Works Newsletter Insert

[X] Other: Great Water Alliance Informational Video Series

A. <u>Education Programs</u>

In 2021, the Utility also utilized the following education platforms and topics for water conservation announcements.

1. Great Water Alliance Website
2. Great Water Alliance Social Media
3. City of Waukesha's Electronic Newletter
4. City of Waukesha's Social Media
5. Advertisement for the Toilet & Shower Head Rebate Program
6. Irrigation Ordinance Bill Insert
7. EPA WaterSense's National Fix a Leak Week
8. National Drinking Water Week
9. Tips on How to Prevent Frozen Pipes

1. Great Water Alliance Website

In 2018, the Great Water Alliance created a website for the purpose of updating communication efforts for the Great Lakes Water Supply program. In 2019, the GWA added water conservation information to its site. The conservation topics include the following:

- You Can Save Water and Money by Replacing Your Old Appliances
- Waukesha's Sprinkling Ordinance
- Finding & Measuring Leaks
- Outdoor Water Conservation Tips

The following pages will show the conservation information that was added to GWA's website.

Water Conservation Information on GWA's Website
Gallons You Can Save By Replacing Old Appliances

When you click on the appliance icon, it provides information on how much water an old appliance uses versus a high-efficiency appliance.

Waukesha's Sprinkling Ordinance Information on GWA's Website

FINDING & MEASURING **leaks**

When it comes to leaks, we often hear the words "but it's just a little leak." Unfortunately, those little leaks can become very expensive. Please read the stories below. (The bill amounts have been updated using **2019** rates and assumes the average residential consumption is **12,000** gallons per quarter.)

While paying a water and sewer bill of **$475** for **90** days use, a customer mentioned that the house rule to "rattle the handle" after a flush was a costly mistake. In this case, the plunger ball wasn't aligned properly and one family member didn't always follow the rule. The toilet ran continuously for up to 4 hours on almost all school days for about 45 days. This wasted **20,000** gallons of water.

A customer said, "I know the toilet was leaking, but it can't cost **$1,498** for 3 months!" This leak wasted approximately **92,000** gallons of water.

The Public Service Commission was contacted about a high water bill. A family was away on extended vacation when a toilet leak developed. The toilet leaked continuously for about **60** days. A 3/8" diameter line was feeding the toilet. Approximately **85,000** gallons of water leaked through the overflow and the bill was **$1,398**.

A customer reported that every few hours his toilet seemed to flush itself. This was caused by the tank refilling after the water leaked around the plunger ball. Our service people found the problem and the customer had it repaired quickly. The amount of water wasted was **26,000** gallons and the water and sewer bill was **$561**.

HOW TO FIND & FIX LEAKS »

Conservation Information on GWA's website – Finding & Measuring Leaks

Conservation Information on GWA's website – Outdoor Conservation Tips

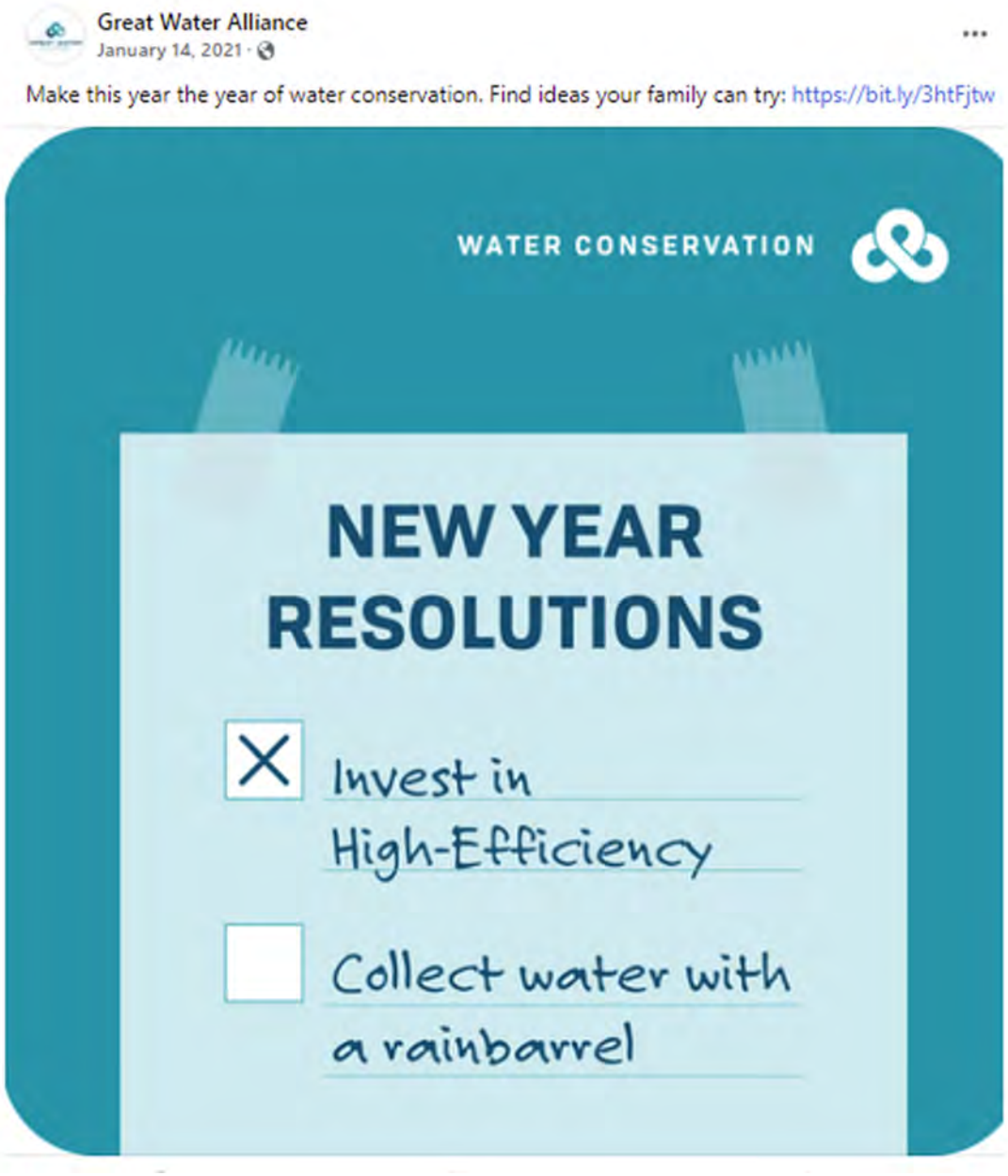
2. Great Water Alliance Social Media

In addition to the conservation information posted on the GWA's website, conservation messages were also posted on GWA's social media account. In 2021, GWA posted the following tweets:

- New Year Water Conservation Resolutions
  - Reuse Water
  - Check for Leaks
  - Invest in High Efficiency
  - Use a Rain Barrel
  - Take Shorter Showers
  - Garden with Native Plants
- Benefits of Rain Barrels
- Outdoor Water Conservation Tips
- Waukesha's Sprinkling Ordinance
- Finding & Fixing Leaks
- Learn More Ways to Conserve Water on Waukesha Water Utility's Website

A copy of the messages posted on twitter are shown on the following pages.

New Year's Conservation Resolutions
Social Media Post

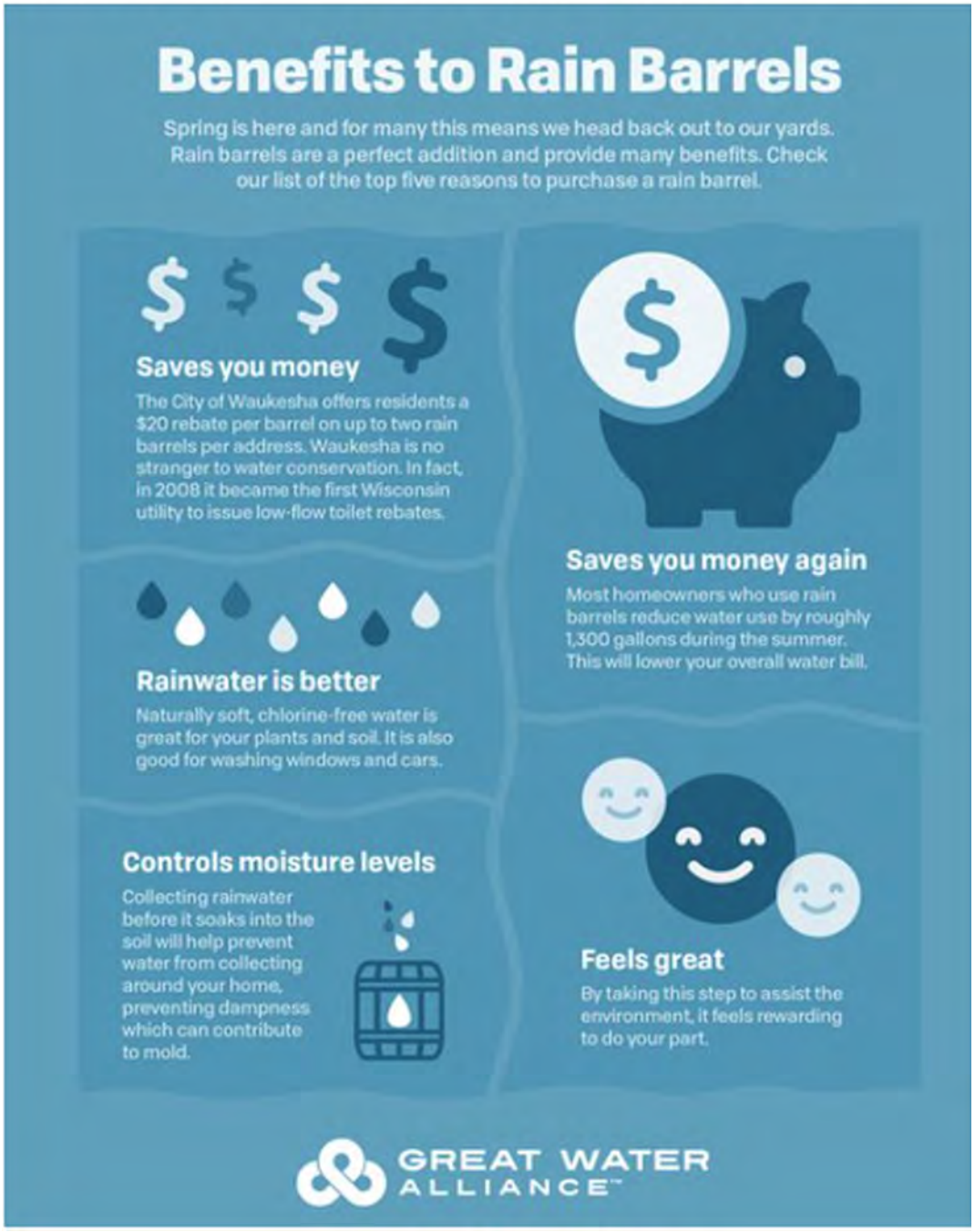


High-Efficiency
Social Media Post

Take Shorter Showers
Social Media Post

Great Water Alliance
April 28, 2021 ·

April showers can help conserve water. Learn more about how you can help: https://bit.ly/3wtKJfs

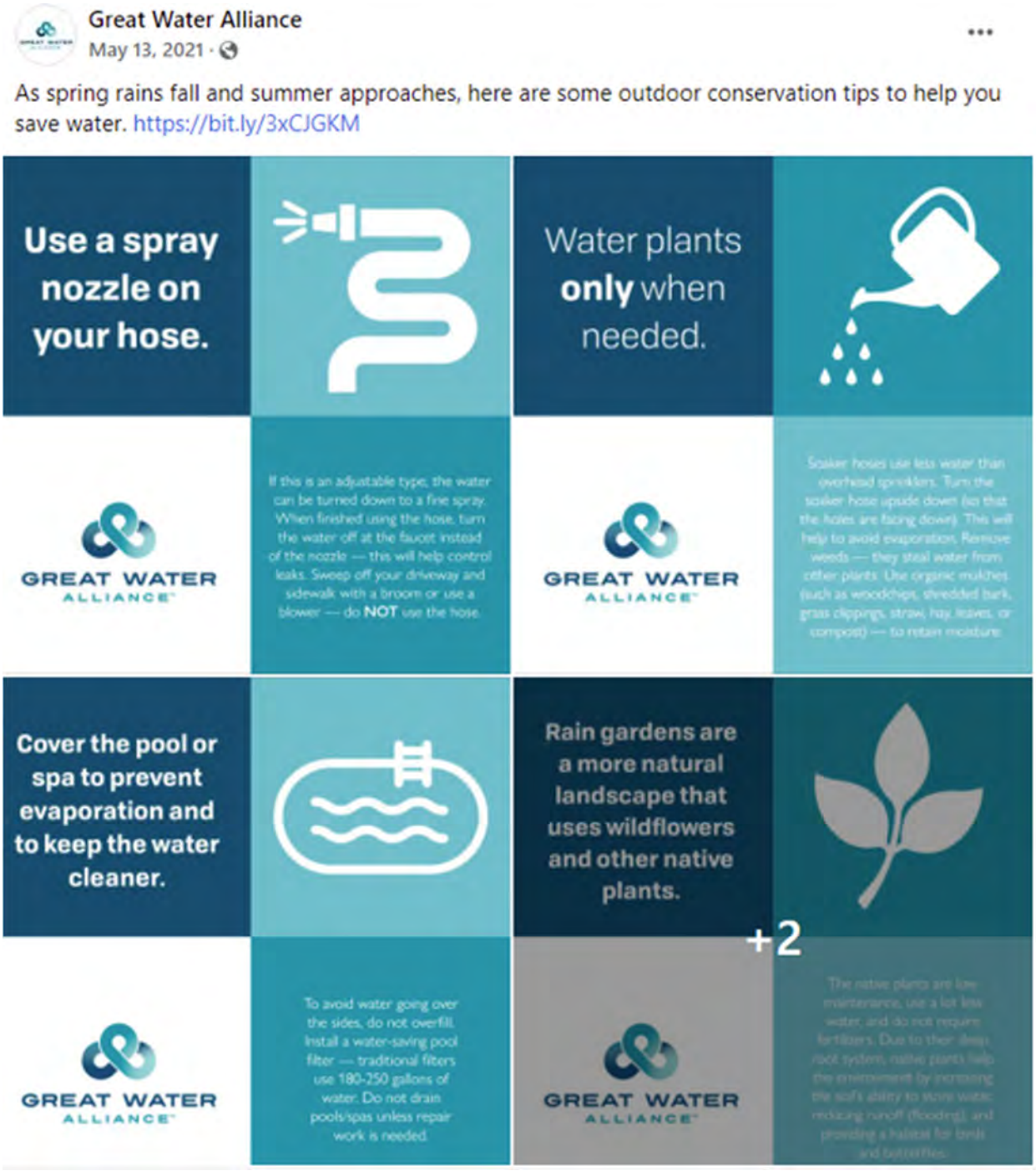


Benefits of Rain Barrels
Social Media Post

Great Water Alliance @GWA_Social · May 13, 2021

Saving water is easy in the spring and summer with these outdoor conservation tips. bit.ly/3aPEY2w #WaterConservation

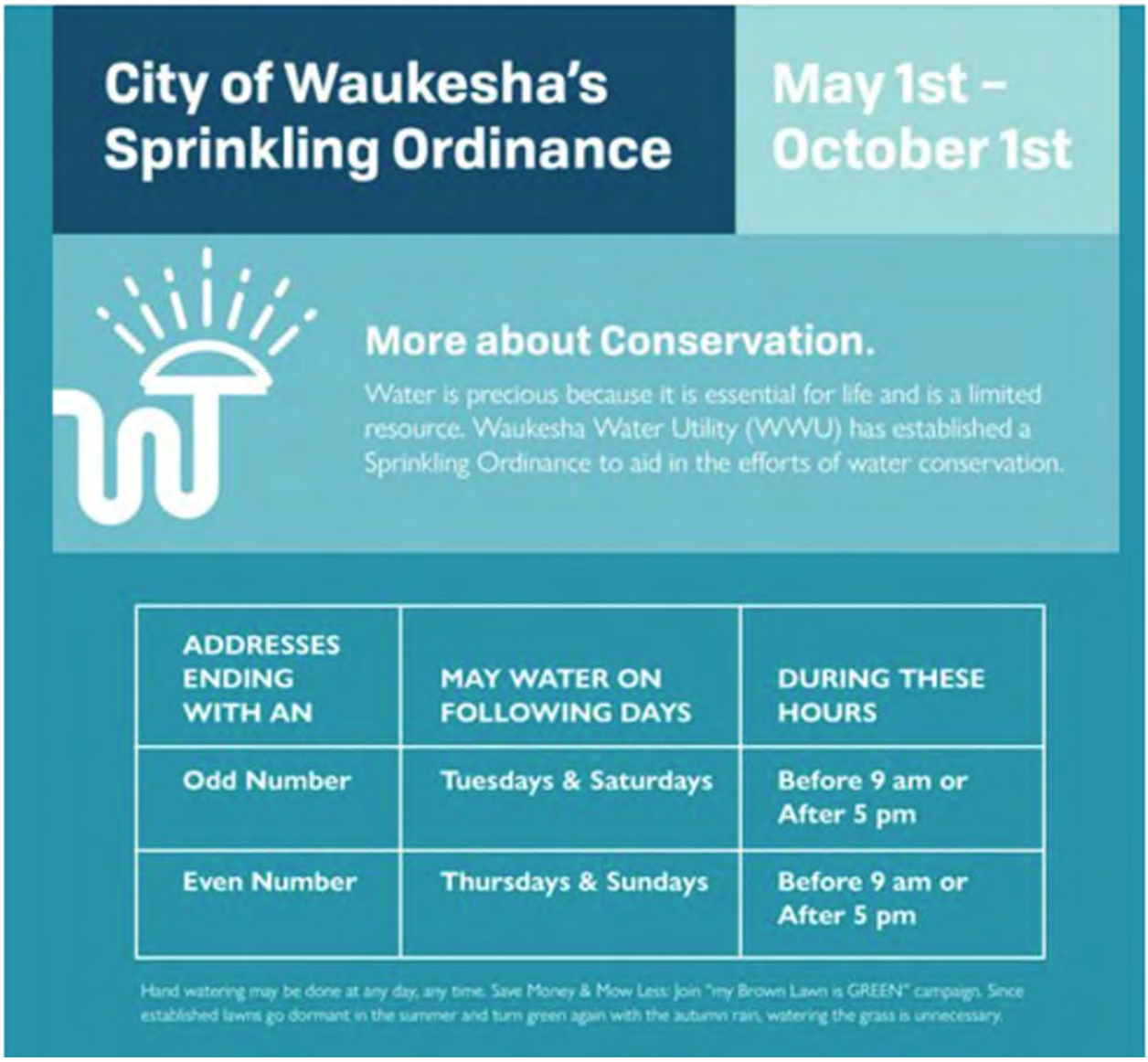
Outdoor Conservation Tips
Social Media Post



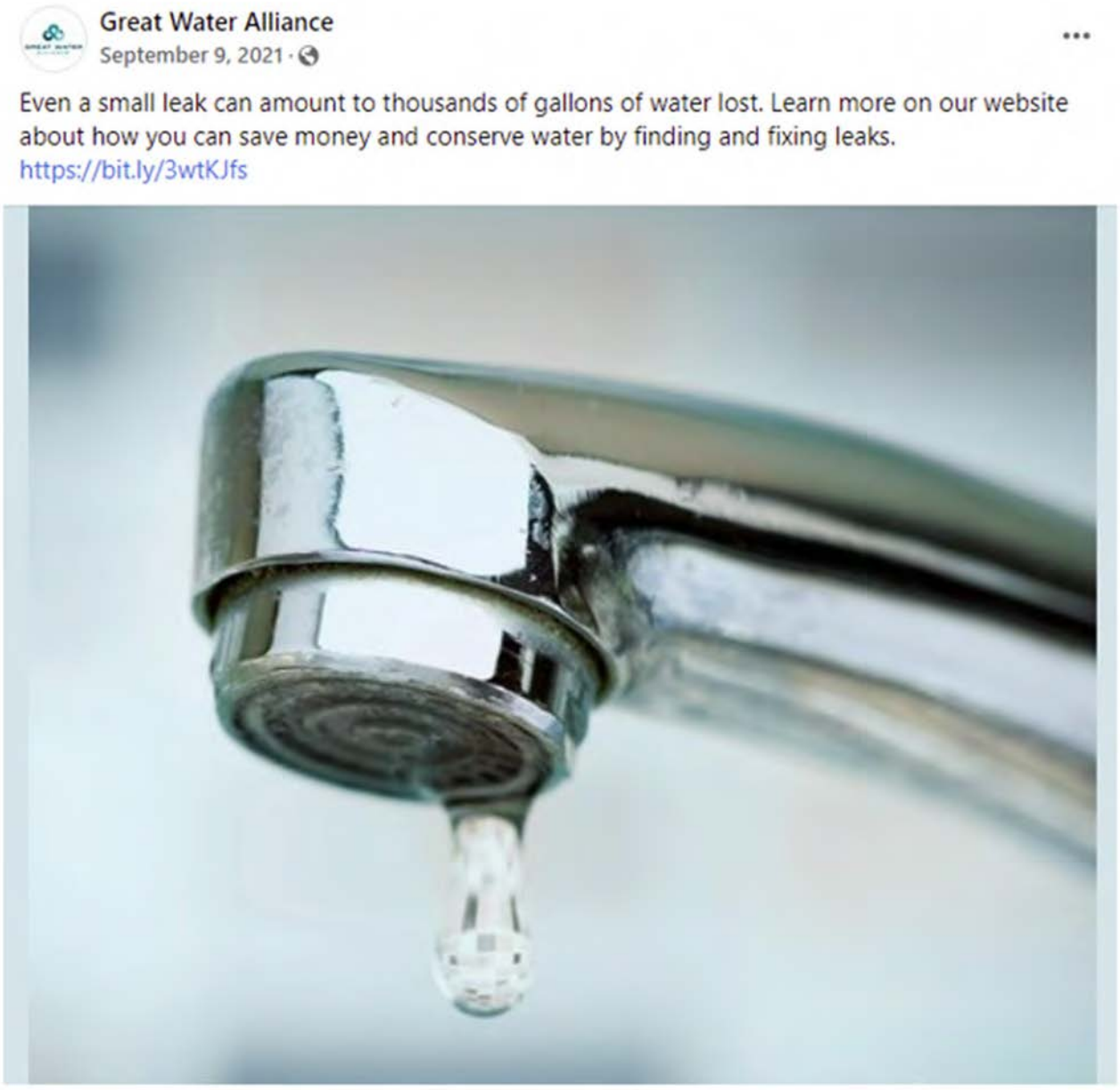
Outdoor Water Conservation Tips
Social Media Post

Great Water Alliance
June 3, 2021 ·

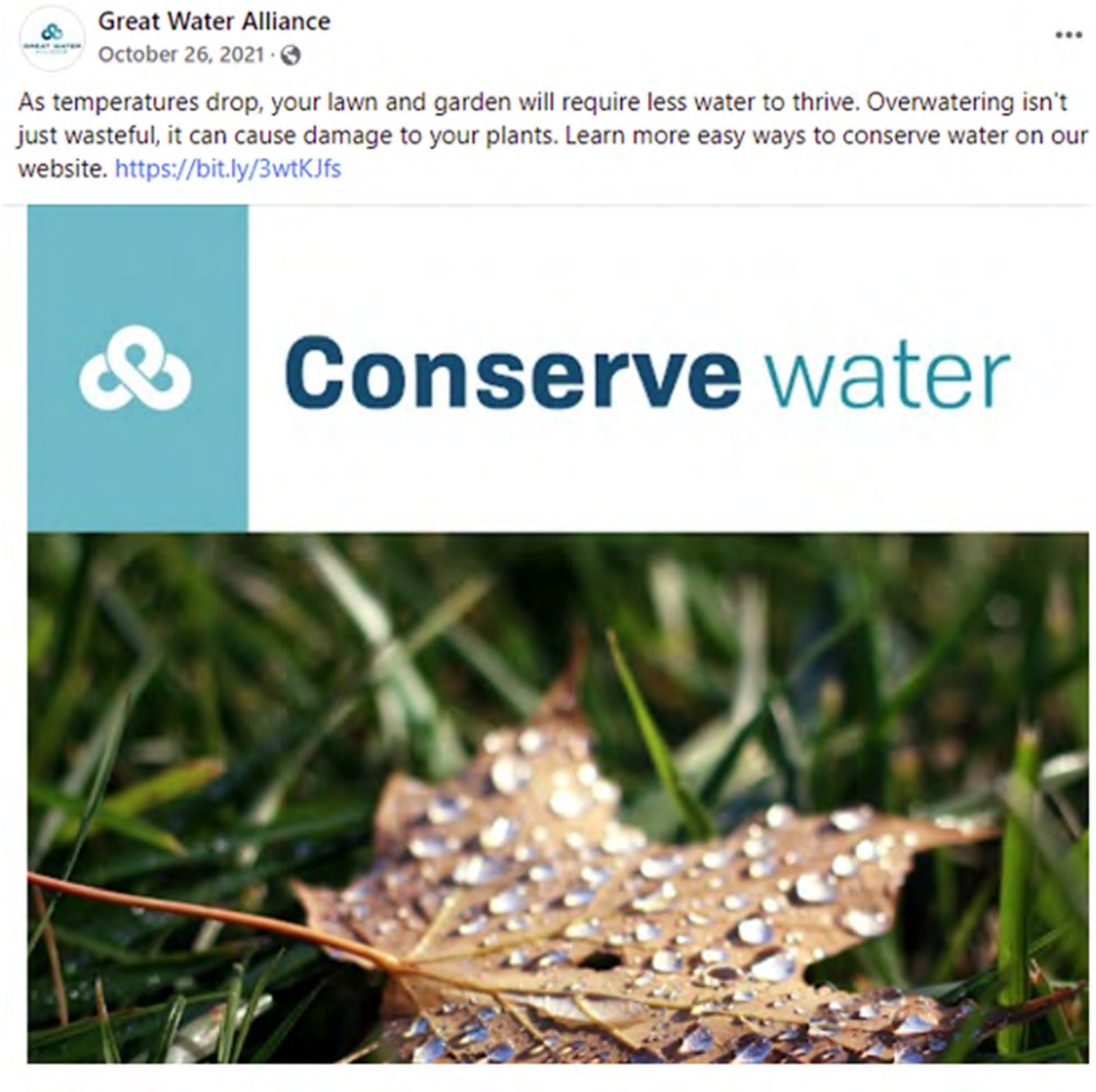
As we move into summer, remember that following the Waukesha sprinkling ordinance can help conserve water for our community. Learn more about water conservation and the sprinkling ordinance here: https://bit.ly/3oZbeWu



City of Waukesha's Sprinkling Ordinance
Social Media Post



Finding & Fixing Leaks
Social Media Post

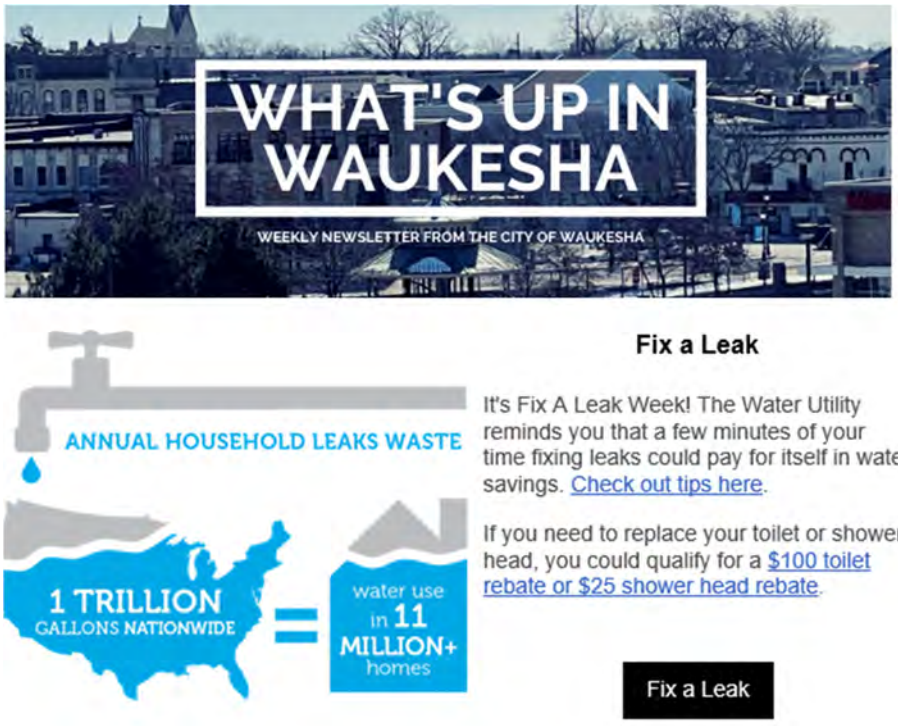


Learn More Ways to Conserve Water
on Waukesha Water Utility's Website
Social Media Post

3. **City of Waukesha's Electronic Newsletter**

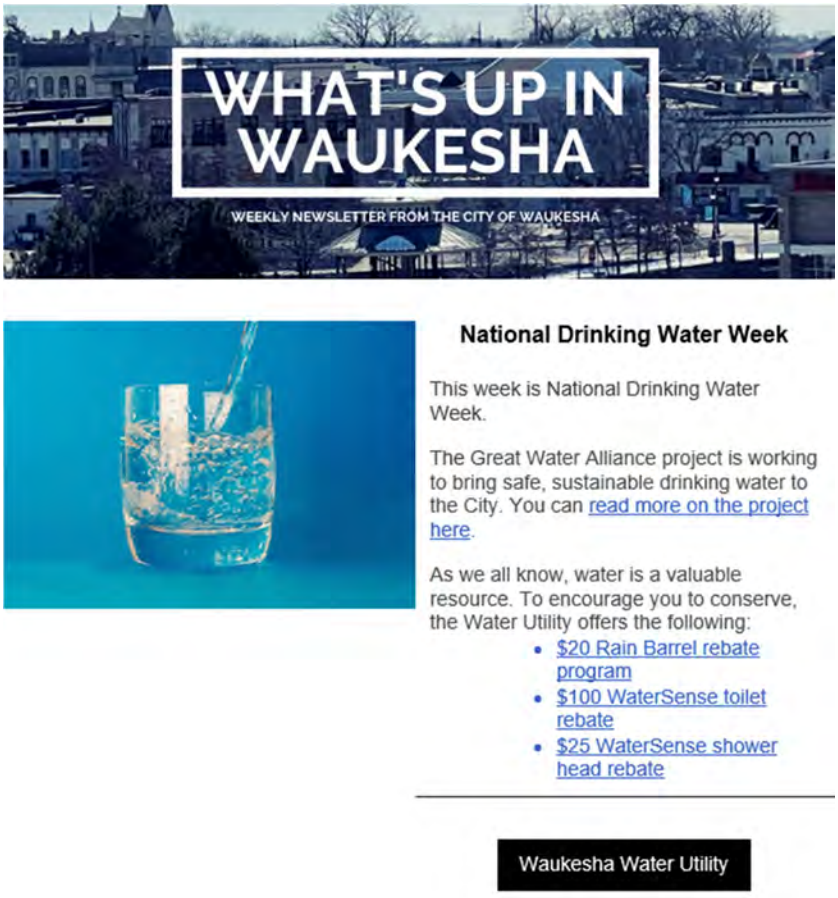
The City's Electronic Newsletter goes out every week to 5,130 people. In 2021, the Utility had the following conservation information listed in the E-Newsletters, as shown below and on the next page.

- *Fix a Leak Week* – we advertised information on finding and fixing leaks, along with information on the toilet and shower head rebates. The black *Fix a Leak* box, as shown below, is linked to WaterSense's Finding and Fixing Leaks webpage.



Fix a Leak Week advertised in the City's Electronic Newsletter

- *National Drinking Water Week* – we advertised the toilet, showerhead, and rain barrel rebate programs and provided a link to the Utility's conservation webpage.

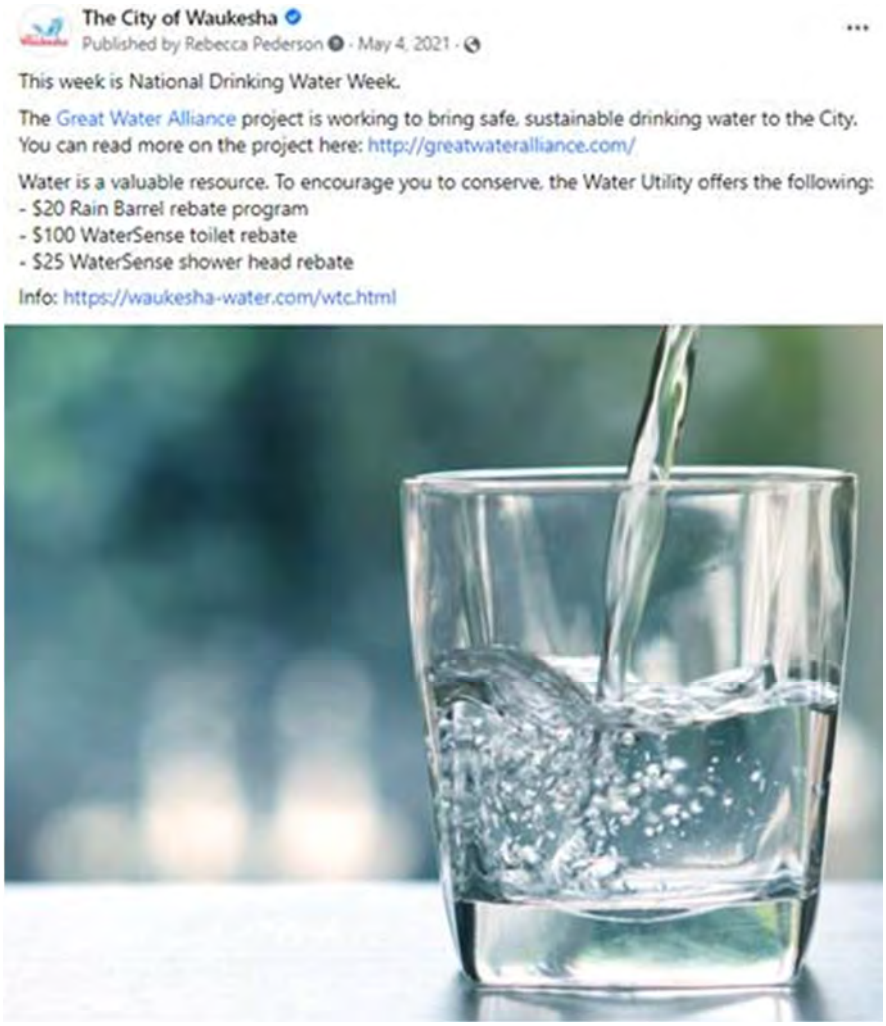


National Drinking Water Week Advertised in the City's Electronic Newsletter

4. City of Waukesha's Social Media

In 2021, information was posted on the City's social media for *Fix a Leak Week* and *National Drinking Water Week* as shown below and on the next page.

Fix a Leak Week
Social Media Post



National Drinking Water Week
Social Media Post

5. Advertisement of the Toilet & Shower Head Rebate Program

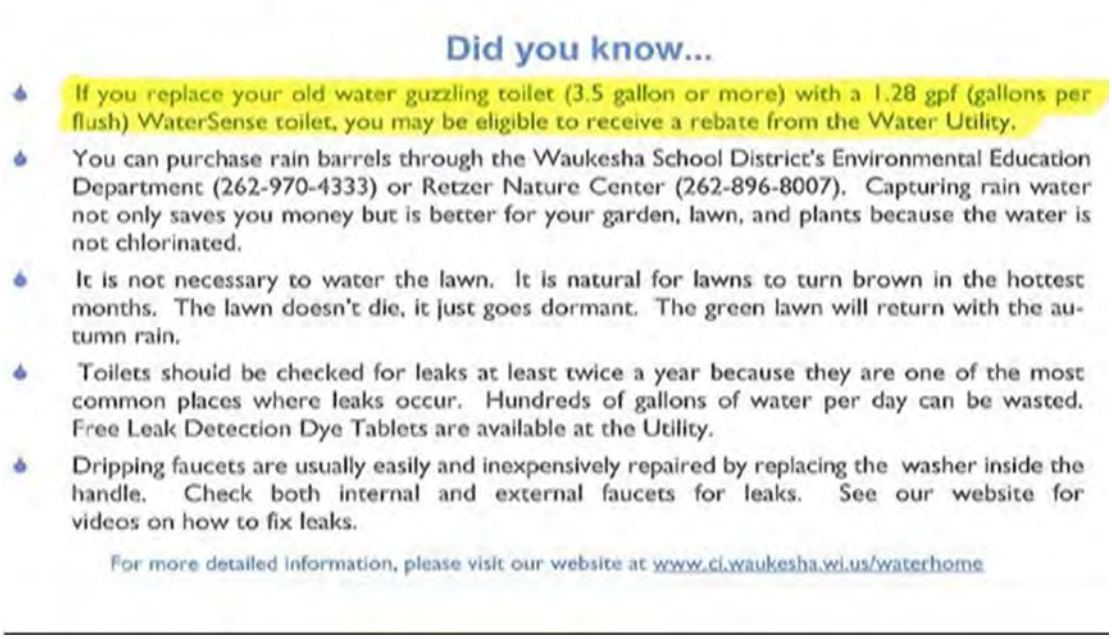
The Utility has publicized the toilet & shower head rebate program in the following ways: messages on bills, bill inserts, ads placed in the City Park & Recreation's Activity Guide, rebate applications on display at Home Depot, and information is given to local plumbers. Information is also posted on the Utility's website, mentioned on the Utility's social media accounts, in press releases (as shown in the Fix a Leak Week & National Drinking Water Week sections), in newsletters, and at public outreach/educational events.

a. Messages on water bills for all customer classes

> IMPORTANT INFORMATION:
>
> "$100 rebates are available for 1.28 gpf toilets and $25 rebates are available for shower heads. For detailed information, please visit www.waukesha-water.com"

b. Bill Insert:

Bill inserts are sent out annually to all customer classes informing them of the 1.28 gpf toilet rebate. In addition, the bill inserts also inform customers where they can purchase rain barrels, that it is not necessary to water the lawn, toilets should be checked twice a year for leaks, and dripping faucets can usually be easily and inexpensively repaired.



Did you know...

- If you replace your old water guzzling toilet (3.5 gallon or more) with a 1.28 gpf (gallons per flush) WaterSense toilet, you may be eligible to receive a rebate from the Water Utility.
- You can purchase rain barrels through the Waukesha School District's Environmental Education Department (262-970-4333) or Retzer Nature Center (262-896-8007). Capturing rain water not only saves you money but is better for your garden, lawn, and plants because the water is not chlorinated.
- It is not necessary to water the lawn. It is natural for lawns to turn brown in the hottest months. The lawn doesn't die, it just goes dormant. The green lawn will return with the autumn rain.
- Toilets should be checked for leaks at least twice a year because they are one of the most common places where leaks occur. Hundreds of gallons of water per day can be wasted. Free Leak Detection Dye Tablets are available at the Utility.
- Dripping faucets are usually easily and inexpensively repaired by replacing the washer inside the handle. Check both internal and external faucets for leaks. See our website for videos on how to fix leaks.

For more detailed information, please visit our website at www.ci.waukesha.wi.us/waterhome

c. City's Park & Recreation Activity Guide:

The toilet and shower head rebate program was advertised in the City's Activity Guide. This Guide is on the City's website and is mailed out to approximately 30,000 homes three times a year.

Toilet, Showerhead, & Rain Barrel Rebate Ad in the City's Activity Guide

2021 Winter/Spring Activity Guide

2021 Summer Activity Guide

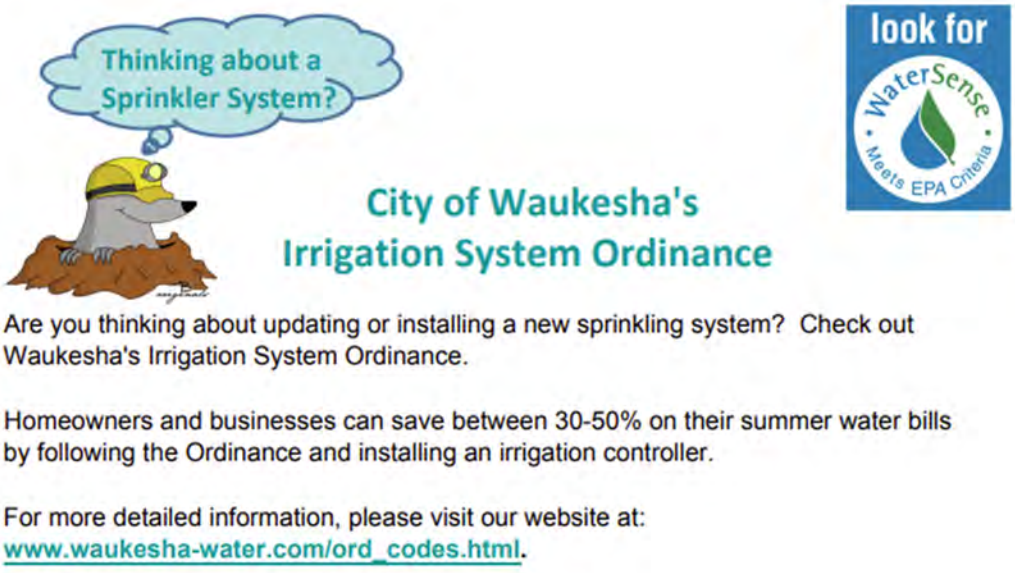
2021 Fall Activity Guide

6. Irrigation System Ordinance Bill Insert

Bill inserts (as shown below) are sent out on an annual basis to all customer classes informing them of the Irrigation System Ordinance.

The first sentence of the postcard has the message that established lawns do not need to be watered. The Utility knows that some customers have sprinkler systems and are going to water their lawns; therefore, the Utility's Irrigation System Ordinance requires a WaterSense irrigation controller to help customers conserve water.

In addition to the bill insert, information regarding the Ordinance is also posted on the Utility's website.



Irrigation System Ordinance Postcard

WaterSense®

7. EPA's WaterSense National Fix a Leak Week

Waukesha Water Utility promoted Environmental Protection Agency (EPA) WaterSense's annual Fix a Leak Week with the following activities:

- Messages were inserted on the Bills.

Fix a Leak Week
Check your winter water bill. If you use 12,000 gallons or more per month, you may have a serious leak! Learn how to fix leaks at www.waukesha-water/wtc.html."

- A press release
- Information on the home page of the Utility's website
- Social Media Post on the Utility's Twitter Account
- Classroom Materials on our website that teach students to check for toilet leaks.

The items, mentioned above, are shown on the following pages.

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886
115 DELAFIELD STREET
WAUKESHA, WI 53188-3615
Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail: contactus@waukesha-water.com

For Immediate Release

Residents Encouraged to Test, Check, Replace
During National Fix a Leak Week

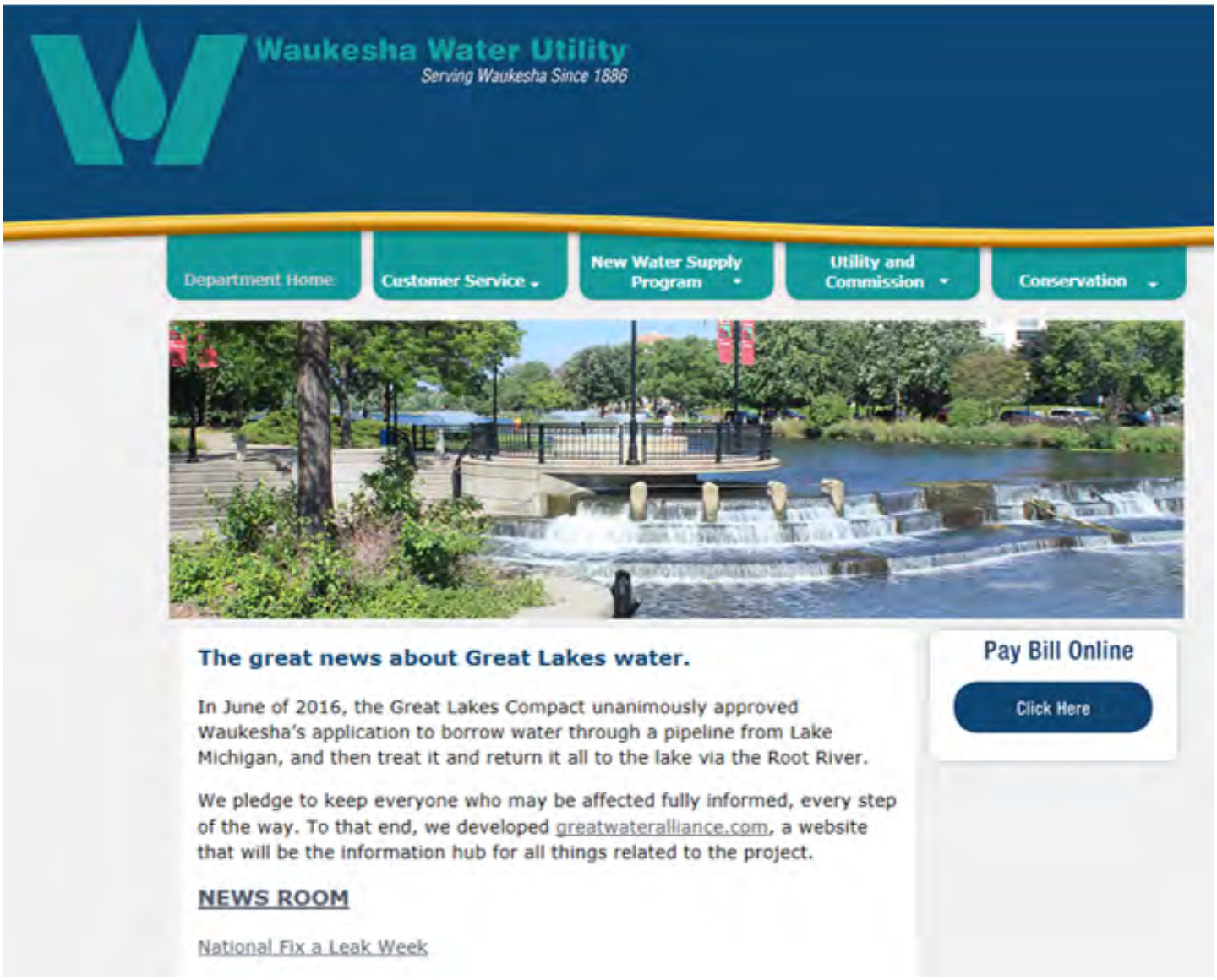
Waukesha, Wi – March 2021, Waukesha Water Utility encourages customers to check for leaks during this year's national Fix a Leak Week. "Leaks can cost families a lot of money," said Mary Adelmeyer, Customer Service Coordinator. "Toilet leaks tend to be invisible and are one of the most common leaks."

When toilets leak, hundreds of gallons of water a day can be wasted without the homeowner's knowledge. To identify silent toilet leaks, the Utility recommends doing a dye test - put 8-10 drops of food coloring into the tank and wait 20 minutes. If color appears in the bowl before flushing, there is a leak. Below is a diagram on how to do the dye test.

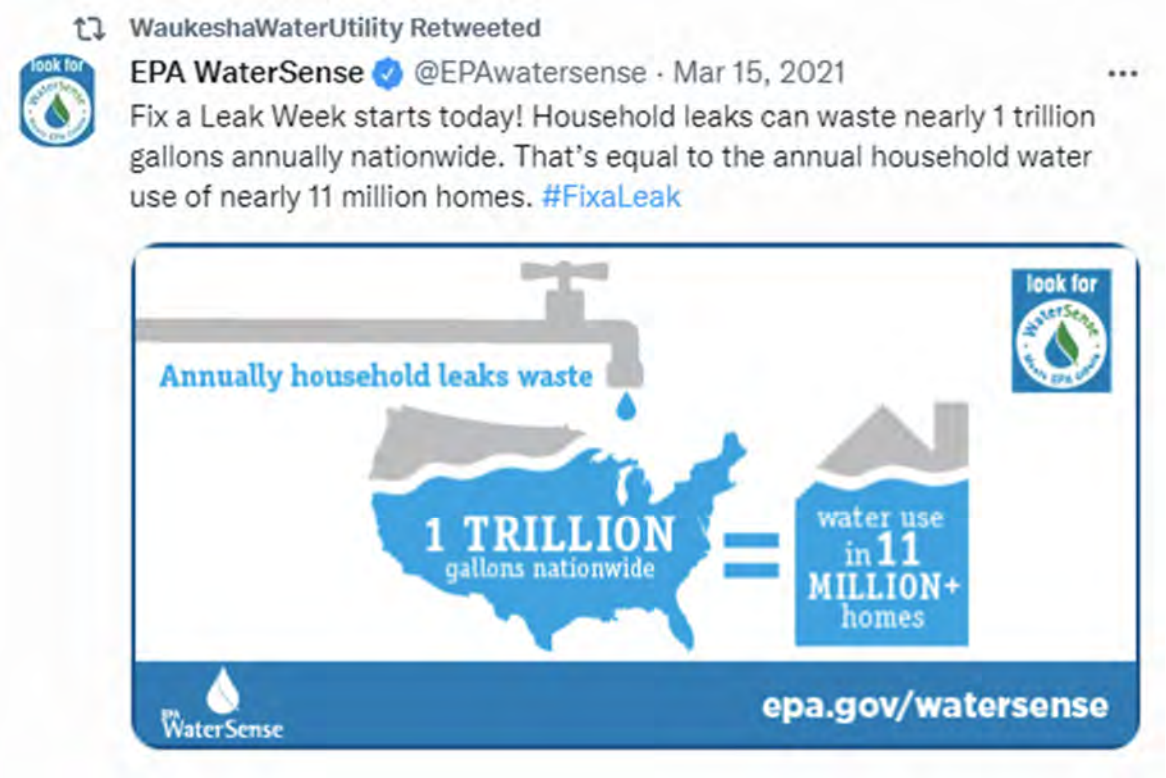
While testing your toilet for leaks, Adelmeyer suggests checking the age of your toilet. Replacing toilets installed 1993 or earlier, with a WaterSense-labeled toilet can save homeowners approximately 13,000 gallons of water per year and $200 on water and wastewater bills. If you live in the city of Waukesha, you may also qualify for a $100 toilet rebate and a $25 shower head rebate.

In addition to testing the toilet for leaks, check for dripping faucets, showerheads, irrigation systems, spigots, and other fixtures. These types of leaks are often easy to fix, requiring only a few tools and hardware that can pay for themselves in water savings.

For more information about the toilet rebate, or finding and fixing leaks, visit the utility's conservation page at www.waukesha-water.com.



Fix a Leak Week Information on the Utility's Website



Social Media Post on Utility's Twitter Account

Social Media Post on Utility's Twitter Account

WaukeshaWaterUtility Retweeted

cityofwaukesha @CityofWaukesha · Mar 15, 2021

It's Fix A Leak Week! A few minutes of your time fixing leaks could pay for itself in water savings: epa.gov/watersense/fix...

If you need to replace your toilet or shower head, you could qualify for a $100 toilet rebate or $25 shower head rebate: waukesha-water.com/downloads/Toil...

Social Media Post on Utility's Twitter Account

Since 1886

Fix a Leak Week: Student Worksheet

Name:_____

Save Water & Money

According to the Environmental Protection Agency (EPA) WaterSense partnership program, "an American home can waste on average, more than 10,000 gallons of water every year due to running toilets, dripping faucets, and other household leaks." That can cost your family a lot of money. That is why Waukesha Water Utility encourages you to use water wisely and check your home for leaks, during this year's national Fix a Leak Week. Try the activities and math problems on both sides of this sheet to see how fast water waste adds up.

Little Leaks Waste Big Amounts of Water

SIZE OF LEAK (Diameter)	WATER WASTED EACH QUARTER (Assuming 60 lbs of pressure)
1/32" drip	18,500 gallons
1/16" trickle	74,000 gallons
1/8" stream	296,000 gallons
1/4" stream	1,181,500 gallons

Toilet Leaks:
Toilet leaks are one of the most common leaks. Toilet leaks tend to be invisible. Hundreds of gallons of water a day can be wasted on toilet leaks. The sound of water running in a toilet tank signals costly leakage. For this reason, it is recommended that toilets be checked for leaks at least twice each year.

Activity #1: ***Test All Your Toilets for Leaks, with the help of your parent.***
Checking a toilet for leaks is easy!
Take lid off the back of the toilet tank.
Put ONE of the attached leak detection tablets into the tank of the toilet.
Do NOT flush the toilet.
Wait for 20 minutes.
If you have another toilet, test that toilet for leaks too by repeating the directions above.
If colored water from the dye tab appears in the bowl within 20 minutes, you have a leak.

Make sure to flush the colored water as soon as the 20 minutes is up, otherwise the coloring may stain.

(Please continue on to page 2 →)

P:\Conservation\Fix a Leak Week\Student Activity Worksheet

Front Side of the Student Activity Sheet – on Utility's Website

Activity #2: ***Record your Data & Calculate How Many Gallons of Water Your Toilet Uses***

1. How many toilets do you have? _____ Did you test all your toilets for leaks? _____

2. Does your toilet leak? (Did the dye color appear in the bowl?) _____ Toilet #1 _____ Toilet #2

3. How old is your toilet? (The year of the toilet can be found on the underside of the tank lid. The date of the manufacture is often stamped into the porcelain.) _____ Year _____ Year

4. What is the size, make, and model of the toilet? (this information may be found in the toilet tank or under the tank lid.)

   Toilet #1 _____ Size _____ Make _____ Model

   Toilet #2 _____ Size _____ Make _____ Model

5. Using a ruler on the outside of the toilet tank, measure the water level (Be sure to measure in feet – answers maybe recorded with decimals or fractions.)

   Toilet #1 _____ Tank Length _____ Tank Width _____ Side Water Depth

   Toilet #2 _____ Tank Length _____ Tank Width _____ Side Water Depth

6. Calculate how many cubic feet of water is in the tank. (Multiply Length x Width x Depth) _____ cu. ft. Toilet #1 _____ cu. ft. Toilet #2

7. Calculate how many gallons of water your toilet uses for every flush. (Multiply the cubic feet x 7.47 = Gallons per Flush) _____ gals. Toilet #1 _____ gals. Toilet #2

$100 Toilet Rebate

8. Is your toilet a pre-1994 toilet? (Look at your answer in #3) _____ Toilet #1 _____ Toilet #2

9. Does your toilet use 3.5 gallons/flush or more? (Look at your answer in #7) _____ Toilet #1 _____ Toilet #2

10. Does your family get a water bill from Waukesha Water Utility? _____ (Ask your parents)

11. If you answered yes to #8, #9, and #10, your family could be eligible to get up to $100 per toilet for replacing their old water guzzling toilet. Is your family eligible? _____ Toilet #1 _____ Toilet #2

12. Have you told your parents about this $100 toilet rebate? _____

If your family is eligible, the old toilet needs to be replaced with a WaterSense 1.28 gpf toilet. Your parents can call the Waukesha Water Utility at (262) 521-5272 or visit our website for more information at www.ci.waukesha.wi.us/waterhome.

_____ Parent Signature _____ Date

Back Side of Student Activity Sheet – on Utility's Website

8. National Drinking Water Week

May 2nd – 8th, 2021 was National Drinking Water Week. In honor of this week, the Utility had a press release that talked about the importance of protecting/conserving water.

In addition, the press release also mentioned the Mayoral Proclamation for National Drinking Water Week and reminded customers about the water conservation programs and incentives that are available through the Utility.

Information was posted on our website. Copies of these items are shown on the following pages.

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

115 DELAFIELD STREET
WAUKESHA, WI 53188-3615

Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail: contactus@waukesha-water.com

For Immediate Release

Rain Barrel Rebate Program & National Drinking Water Week

Waukesha, WI – As Mayor Shawn Reilly commemorates National Drinking Water Week with a Mayoral Proclamation, the Water Utility reminds customers about the new Rain Barrel rebate program.

"Harvesting rain water is easy and a great way to conserve water," says Mary Adelmeyer of the Waukesha Water Utility. "A 50-60 gallon rain barrel, which connects to a downspout to capture rain water, can collect a surprising amount of water: 1/10th of an inch of rain falling on a 1,000 square foot rooftop can fill a 50-gallon barrel. That's 50 free gallons of naturally soft, chlorine-free water which is great for watering your flowers and plants, washing off your boots, washing the car or bike, or any other outdoor activities."

Rain barrels can be purchased from local hardware stores. Rain barrels cost approximately $70-$100. To qualify for the $20 rain barrel rebate, Adelmeyer tells us that the rain barrels must be installed in the utility's service area, the original purchase receipt must be submitted within 90 days of purchase, and post-installation pictures must be included with the rebate application, which can be found on the utility's website. Adelmeyer also shared that rebates are available on a first-come, first-served basis and are subject to the availability of funds.

In addition to the rain barrel rebates, the utility is also reminding customers about the $100 WaterSense toilet rebate and the $25 WaterSense shower head rebate.

The Mayor tells us that "National Drinking Water Week is the perfect time to remind people of the importance of conserving water; and to inform city residents and businesses about the water conservation programs and incentives that are available through the Waukesha Water Utility to help us conserve."

For more detailed information, please visit the conservation section on the utility's website at www.waukesha-water.com.

Press Release Regarding National Drinking Water Week

OFFICE OF THE MAYOR
201 DELAFIELD STREET
WAUKESHA, WISCONSIN 53188-3633
TELEPHONE 262/524-3700 FAX 262/524-3899

Shawn N. Reilly
sreilly@waukesha-wi.gov

National Drinking Water Week
PROCLAMATION

WHEREAS, water is one of our most important natural resources; and

WHEREAS, each citizen and business in our City has a responsibility to protect and conserve water; and

WHEREAS, the Waukesha Water Utility has encouraged and will continue to encourage businesses to conserve water; and

WHEREAS, the Waukesha Water Utility offers grant money to businesses that replace equipment with new technology that saves water; and

WHEREAS, the Waukesha Water Utility encourages and provides $100 rebates to residents to replace all pre-1994 toilets with 1.28 gpf WaterSense toilets, as well as, $25 WaterSense showerhead rebates, and $20 rain barrel rebates; and

WHEREAS, all citizens and businesses are urged to comply with all sprinkling and irrigation system ordinances; and

WHEREAS, we are all stewards of our water resources and infrastructure so that future generations will also have clean sustainable water; and

WHEREAS, Waukesha has begun construction of the historic Great Water Alliance project for Lake Michigan water, ensuring that our drinking water supply will be sustainable and reliable for generations to come;

NOW THEREFORE, I, Shawn Reilly, Mayor of the City of Waukesha, proclaim May 2nd to May 8th, 2021 as

NATIONAL DRINKING WATER WEEK

And ask that we recognize the essential role that drinking water plays in our daily lives.

Signed this 4th day of May, 2021.

Shawn N. Reilly, Mayor
City of Waukesha

Mayoral Proclamation for National Drinking Water Week

9. Tips on How to Prevent Water Pipes from Freezing & Breaking

Broken water pipes waste a lot of water. To prevent pipes from freezing and breaking, the Utility puts the annual press release in the Waukesha Freeman and on the Utility's website. The press release is shown below.

For Immediate Release

Waukesha Water Utility

Press Release

Contact:
115 Delafield Street
Waukesha, WI 53188
Phone 262-409-4423
Fax 262-521-5265

Prevent Freezing Pipes

Waukesha, WI, - February 12, 2021 Cold weather and wind chills means we can expect frozen water pipes and water damage if exposed areas aren't properly insulated or we aren't careful about winter heating. Here are some problem areas, warning signals and tips to minimize the chance of freezing water pipes.

PROBLEM AREAS

- Pipes near broken or open basement windows
- Unheated crawl spaces and equipment rooms
- Pipes near the foundation or cracks in the basement wall
- Pipes near exterior wall in unheated room
- Inadequate heating in un-insulated or uncovered outside pit
- Pipes under kitchen sinks or cupboards

WARNING SIGNS OF FREEZE

- Unusually cold water temperature (less than 35° F) at any fixture
- Unusually low water flow at a fixture
- Discolored water at a fixture
- Low water pressure at a fixture
- Extremely cold piping at a fixture
- Sputtering sound when opening a fixture

THAWING FROZEN PIPES

- It's safest to use hot air from a hair dryer or exhaust from a vacuum cleaner
- Use heat tape, but with caution, and unplug when finished

PREVENTION

- Check water temperature and run a little water if unusually cold
- Shut off and drain outside water faucets before freezing occurs
- Run small amounts of water from highest faucet until full flow returns
- Insulate walls near exposed piping
- Repair cold air leaks to reduce drafts on piping and meter

CAUTION

- To prevent fires, never thaw with an open flame or torch
- Be careful if pipe is cracked, it will spray water into electrical appliances when thawed
- Check and clear drains to prevent basement flooding in case of pipe burst
- Know where the main shut-off valve is located so you can turn it off quickly in case a pipe bursts

If you need additional information, please contact the Customer Service Department of the Waukesha Water Utility at (262) 521-5272.

Prevent Freezing Pipes
Press Release

B. Community Presentations & Public Outreach Events

In 2021, because of the COVID pandemic, there were only a few community presentations and public outreach events; and some of these events were switched to virtual to ensure public safety.

1. Zoom Meeting with Realtors
2. Meeting with Alderman McElderry
3. EWRI Congressional Recording
4. AWWA Fly In Virtual Meetings with members of Congress
5. Zoom Meeting with 3 Senators
6. Booster Pump Open House
7. Waukesha Department Heads Interview Meeting
8. WEFTEC International Round Table Event
9. ASME Presentation

The detailed information pertaining to this year's presentations and outreach events follows.

1. Zoom Meeting with the Realtors' Association

The Wisconsin Realtors Association in Waukesha had questions regarding water quality issues and projected rate increases. Realtors were very concerned that people would not want to buy houses in Waukesha, due to the radium issue and the rate increases to obtain a new water source. The Realtors' Association held a zoom meeting with Dan Duchniak to ask questions and voice their concerns.

Dan talked to the realtors about why Waukesha needs a new water source. He explained how getting a reliable and sustainable water supply, would make the city of Waukesha a desirable place to live, now and for future generations.

Dan shared information about the Application process, about the 14 alternative sources that were researched, and talked about why Lake Michigan is the most reasonable alternative.

He also talked about the projected rates for the typical residential family and about the Utility switching to monthly billing, which would provide more timely information about customers' water use.

Dan also talked about the ways people could lower their water bills. He shared information about the Utility's conservation program, including information about the rebates that are available. He also mentioned that customers would save money on the salt they purchase for their water softeners, because Lake Michigan's water is 70% softer.

Finally, Dan explained what the City has done to lessen the possible increases. Dan talked about how the city saved money by purchasing water from the City of Milwaukee. He shared information about how local officials worked with the Federal Government, to obtain low cost federal interest loans, and with the local and state legislators, to help with the terms for state infrastructure loans.

2. Meeting with Alderman McElderbury

Mr. McElderbury is a new alderman for the city of Waukesha. Dan Duchniak meets with all new alderpersons and gives them an introduction to the Utility. The introduction includes the history of the Utility, a discussion of the rates, and a lot of time is spent talking about the Great Water Alliance project (all the work prior to construction along with a current update), and a discussion about Waukesha's conservation program.

ASCE AMERICAN SOCIETY® OF CIVIL ENGINEERS

EWRI

Environmental & Water Resources Institute

3. <u>EWRI Congressional Recording</u>

Per the American Society of Civil Engineers' (ASCE) website, the Environmental & Water Resources Institute (EWRI) is a technical source for environmental and water-related issues. It allows the water community to share existing knowledge, combined with research and resources, to develop best practices for a healthy and sustainable environment.

In April 2021, Waukesha Water Utility took part in the EWRI congress by presenting information on the Great Lakes water project, including the Utility's water conservation program and it's role in the new water supply development.

American Water Works Association

Dedicated to the World's Most Important Resource®

AWWA shifts Water Matters! Fly-In to virtual event in April 2021

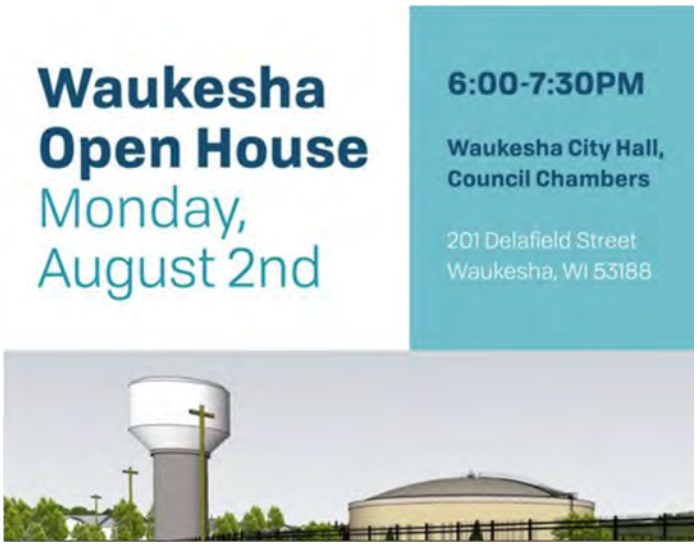
4. <u>AWWA Fly-In Event</u>

Due to the Covid-19 pandemic, the American Water Works Association (AWWA) held a virtual event that allowed AWWA members to meet virtually with members of Congress to voice support for water policies and legislation.

Waukesha Water Utility had the opportunity to meet with Representatives Grothman, Steil, and Kind, and Congressman Tiffany and Congresswoman Moore. During these meetings Dan Duchniak was able to talk with the delegates about Waukesha's water supply issues and how Waukesha's conservation program meets the NR852 requirements. Dan also shared information about how implementing a state wide water conservation and efficiency legislation would impact other water utilities in Wisconsin.

5. Zoom Meetings with Staff Members for Senators Johnson, Fitzgerald, and Baldwin

Waukesha Water Utility's General Manager, Dan Duchniak, had a zoom meeting with staff members for Senator Ron Johnson, Senator Scott Fitzgerald, and Senator Tammy Baldwin. Dan provided a status update on the GWA water project, talked about the Utility's conservation program, and how the establishment of state legislation on water conservation impacts new water supply development for Wisconsin water utilities.



6. Booster Pump Open House Meeting

GWA hosted an in-person open house at Waukesha City Hall for people to learn about why Waukesha needs a new water source, to learn about the new booster pumping station, to get an update on the construction of the project, and to get information about the conservation plan/rebates, etc.

7. Waukesha Department Heads Interview Meeting

The City of Waukesha has a Leadership program that focuses on developing and enhancing leadership skills that empowers participants to assume leadership roles in their community and to further their careers. One of the project assignments for the participants is to interview the City department managers.

Dan Duchniak talked about his role at the Utility. He talked about the Great Lakes project, including the Application process, the Utility's conservation program (including rebates that are available), and the water supply service area plan, etc.

8. WEFTEC International Round Table Event

The Water Environment Federation is a program that promotes high quality drinking water and sanitation services for everyone in the world. They host annual technical exhibition and conferences.

In October 2021, Dan Duchniak participated in the International Round Table Event where he met Utility representatives from other countries and talked with them about the water supply issues in Wisconsin.

In addition, Dan talked about Waukesha's GWA project, about the Application process, and spent the majority of the time talking about the specifics of Waukesha's water conservation program. Dan also asked the attendees to share ideas for water conservation that they implemented in their countries.

MILWAUKEE SECTION

9. ASME Presentation

In November 2021, The Milwaukee Section of the American Society of Mechanical Engineers (ASME) hosted a webinar and Dan Duchniak gave an update on Waukesha's construction project for the new water source.

Dan presented information about Waukesha's need for a sustainable and safe new water supply. Dan talked about Waukesha's depleted aquifer and water quality issues. He also talked about the Application process, the conservation program, and the new infrastructure that has to be built to bring Lake Michigan water to Waukesha (which includes the pipelines, a booster pumping station, reservoirs, and a new water tower).

Dan also talked about the discharge techniques. He informed the audience that after Waukesha uses the water, 100 percent of the water would be treated and returned to Lake Michigan. Dan explained that we would return the water via the Root River; and talked about the sustainability and environmental benefits.

- **ASME Milwaukee Webinar - November 9, 2021 - "Getting Lake Michigan Water to Waukesha, WI"**

This month, the ASME Milwaukee Section will be hosting a webinar presented by Dan Duchniak, P.E., the General Manager of the Waukesha Water Utility. Dan will discuss a brief background of why the City of Waukesha is pursuing Great Lakes water and then will provide an update on construction of the project. The construction overview will cover the water supply and return flow main construction techniques. The is no charge for this event but a $10/$20 donation to our student chapters is suggested.

For more information and to register:

http://events.r20.constantcontact.com/register/eventReg?llr=hpcqvigab&oeidk=a07eiqpskdz0355ed16Posted by AllenPerkins311 on 3 months ago

C. Water Education with the Youth – Tomorrow's Future

Waukesha Water Utility plans for the future by educating our youth.

1. Waukesha School District's 5th Graders

For the past 31 years, Waukesha Water Utility has partnered with the Waukesha School District to provide water education to all 5th graders. As part of their Environmental & Science Curriculum, the students study the natural cycles of water and the human impact on our water resources. Thousands of students have toured the Utility's pumping station. At the station, they learn about the following:

- the water cycle
- where their water comes from
- how their water is treated and distributed
- the quality and quantity of the water they use
- conservation methods that use water resources in a sustainable manner
- the costs of municipal water, and its value compared to bottled water

The students also explore the natural cycles of water by spending a day in the Fox River Sanctuary investigating the chemical and biological components of the river and marsh.

In 2021 due to the pandemic and schools being closed or held remotely, the water education classes did not occur.

2. Waukesha County Boy Scouts

On an annual basis, the Waukesha Water Utility partners with the Waukesha County Boy Scouts, to help the boys earn their Soil and Water Conservation Merit Badge.

According to the Boy Scouts of America (BSA), in order to earn this badge, the boys need to learn “about the natural resources on which our lives depend, so that we can help make sure that these resources are used intelligently and cared for properly.”

The water portion requirements of the badge program, as stated in their *Soil & Water Conservation Merit Badge Series* BSA No. 610016, are the following:

- Take a tour of a public drinking water treatment plant,
- Explain what a watershed is,
- Make a drawing to show the hydrologic cycle,
- Tell what is meant by water pollution and describe common sources, and
- Write a report of more than 500 words about the soil, water, and energy conservation practices.

The Utility’s water education presentation covers all the above required water topics, including pictures of the water treatment plant and the distribution process.

In 2021, due to the Covid pandemic, this event did not take place.

D. Partnerships

Waukesha Water Utility has many partnerships. Below are some of the partnerships that, in some way, have already been mentioned throughout the report.

Boy Scouts of America

MILWAUKEE
SECTION

VII. WATER LOSSES AND ACCOUNTED FOR WATER

Per NR 852.04 and PSC 185 the Utility performs and documents water use audits on a monthly basis. A summary of 2021 is as follows. Data is entered into the format below.

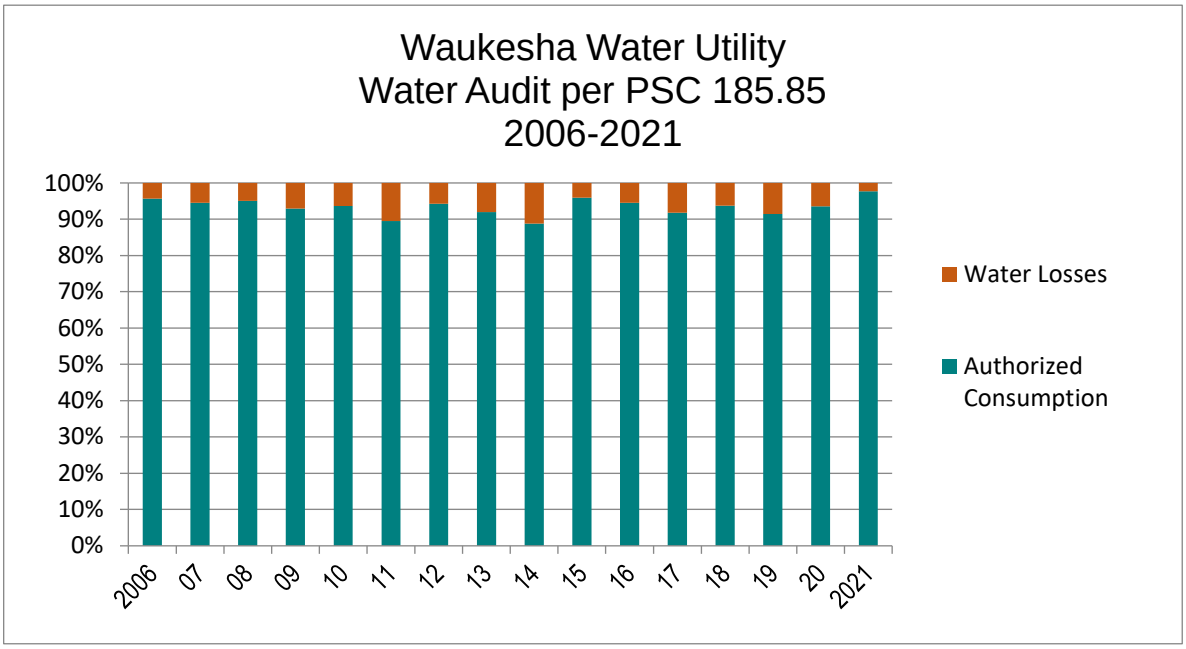
Data Input		
		2021 Total
	Sales - Metered	1,853,721,350
	Sales - Est. Consumption	0
	Plant	145,700
	Water Analyzer Water Flow (9)	793,920
	Filter Back wash	
	# 3	3,611,000
	# 8	4,295,000
	# 10	5,535,000
	Flushing	
	Mains	8,316,000
	Services	0
	Main Breaks	3,756,000
	Morgan Ave	0
	Service Breaks	200,000
	Filling Mains / New Construction	428,300
	Fire (524-3647)	611,061
	Misc: Specify	
	Cleaned Saylesville Reserv	0
	Well #10 Filter Rehab	0
	Elminate 16" valve on North St	0
	Hydrant Repairs	19,500
	Hydrant Replacement	19,500
	Hydrant Surveys	23,500
	Valve replacements (2)	40,500
	Fire Flow Test	19,197
	Leakage & Overflows at Towers	1,064
	Total Pumped	1,923,146,000

Then the raw data is converted into the Water Balance categories specified in PSC 185.

Water Balance		
		2021 Total
	System Input Volume =	1,923,146,000
	Authorized Consumption =	1,877,579,528
	Water Losses =	45,566,472
		1,923,146,000
	Authorized - Billed =	1,853,721,350
	Authorized - UnBilled =	23,858,178
	Losses - Apparent =	41,609,408
	Losses - Real =	3,957,064
		1,923,146,000
Authorized Consumption	Billed & Metered	1,853,721,350
	Billed & UnMetered	0
	UnBilled & Metered	22,696,620
	UnBilled & UnMetered	1,161,558
Water Losses	Unauthorized Consumption	41,609,408
	Meter Inaccuracies	
	Data Handling Errors	
	Main Breaks	3,756,000
	Leakage & Overflows at Towers	1,064
	Service Breaks	200,000
		1,923,146,000
	Revenue Water =	1,853,721,350
	Non Revenue Water =	69,424,650
		1,923,146,000

The summary, above, indicates that in 2021, 2.4% of the Utility's water was lost. This loss is far less than the 15% that has historically triggered a comprehensive survey and corrective action plan.

The stability of the statistics over the last sixteen years and the data itself is indicative of a diligently maintained distribution system. (The Utility reformatted its data from 2006 forward so that its display is consistent with the 2012 requirements.) Accounted for Water ranges between 88.8% and 97.6%.



The results are achieved because the Utility routinely repairs and replaces water services, hydrants and valves. In 2015, the Utility initiated Hydrant Leak Surveys as part of its semi-annual flushing program.

In 2021, the Utility staff surveyed 1,174 hydrants. Any hydrants that were found to be leaking were repaired immediately.

In addition, the Utility replaced 8,393 feet of water main in 2021 compared to 10,551 feet in 2020. AWWA's 1% replacement goal represents roughly 17,600 feet.

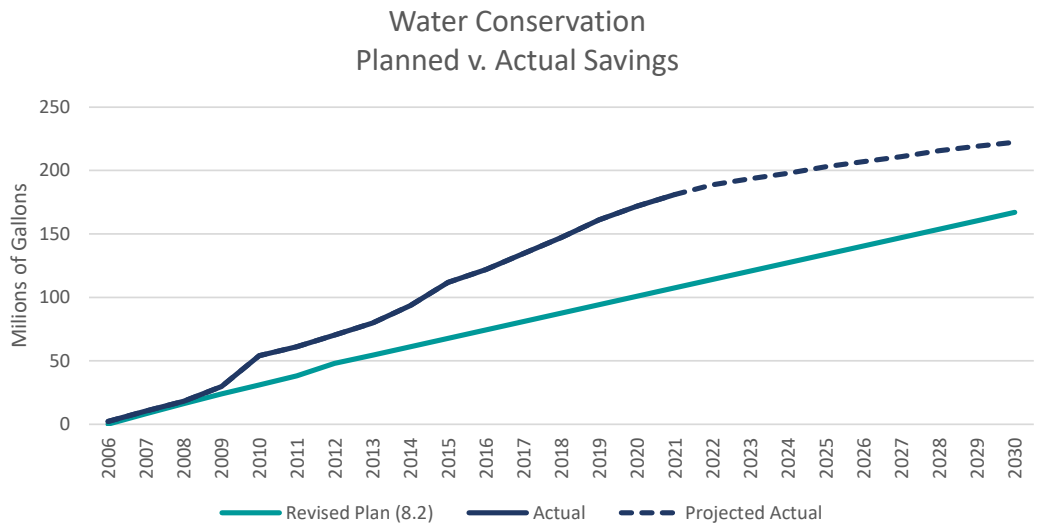
VIII. CONCLUSION

	MILLIONS OF GALLONS												
Year	Annual Pumpage	Avg Day Pumpage	< 7.8	7.8 to 8.8	8.8 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	>7.8	>8.8	Peak Day	Notes
			Number of Days										
2021	1,923,146	5,269	362	3	-	-	-	-	-	3	-	8.35	
2020	1,933,288	5,282	365	1	-	-	-	-	-	1	-	8.14	
2019	2,039,436	5,587	365	-	-	-	-	-	-	-	-	7.72	
2018	2,068,522	5,667	362	3	-	-	-	-	-	3	-	8.50	
2017	2,128,111	5,830	365	-	-	-	-	-	-	-	-	7.55	
2016	2,172,548	5,952	362	3	-	-	-	-	-	3	-	8.17	
2015	2,218,214	6,077	358	7	-	-	-	-	-	7	-	8.72	Mild summer temperatures
2014	2,314,582	6,341	340	21	2	1	1	-	-	25	4	10.14	Feb 6th Water Runs
2013	2,348,955	6,435	346	15	2	2	-	-	-	19	4	9.06	
2012	2,536,368	6,930	297	38	3	22	6	-	-	69	31	10.77	Drought Year
2011	2,545,099	6,973	318	44	1	2	-	-	-	47	3	9.22	
2010	2,441,221	6,688	342	23	-	-	-	-	-	23	-	8.65	Fairly Rainy Summer
2009	2,479,905	6,794	330	32	2	1	-	-	-	35	3	9.35	2nd set inclining rates blocks - June
2008	2,528,933	6,910	328	30	6	2	-	-	-	38	8	9.93	Spring Flooding
2007	2,618,641	7,174	292	51	8	14	-	-	-	73	22	9.79	Inclining rate blocks - June; Dry year except Aug
2006	2,622,418	7,185	294	61	1	8	1	-	-	71	10	10.23	Rainy Year; Sprinkling ordinance in effect

The data, above, shows the combined effect of our conservation programs. Over time:

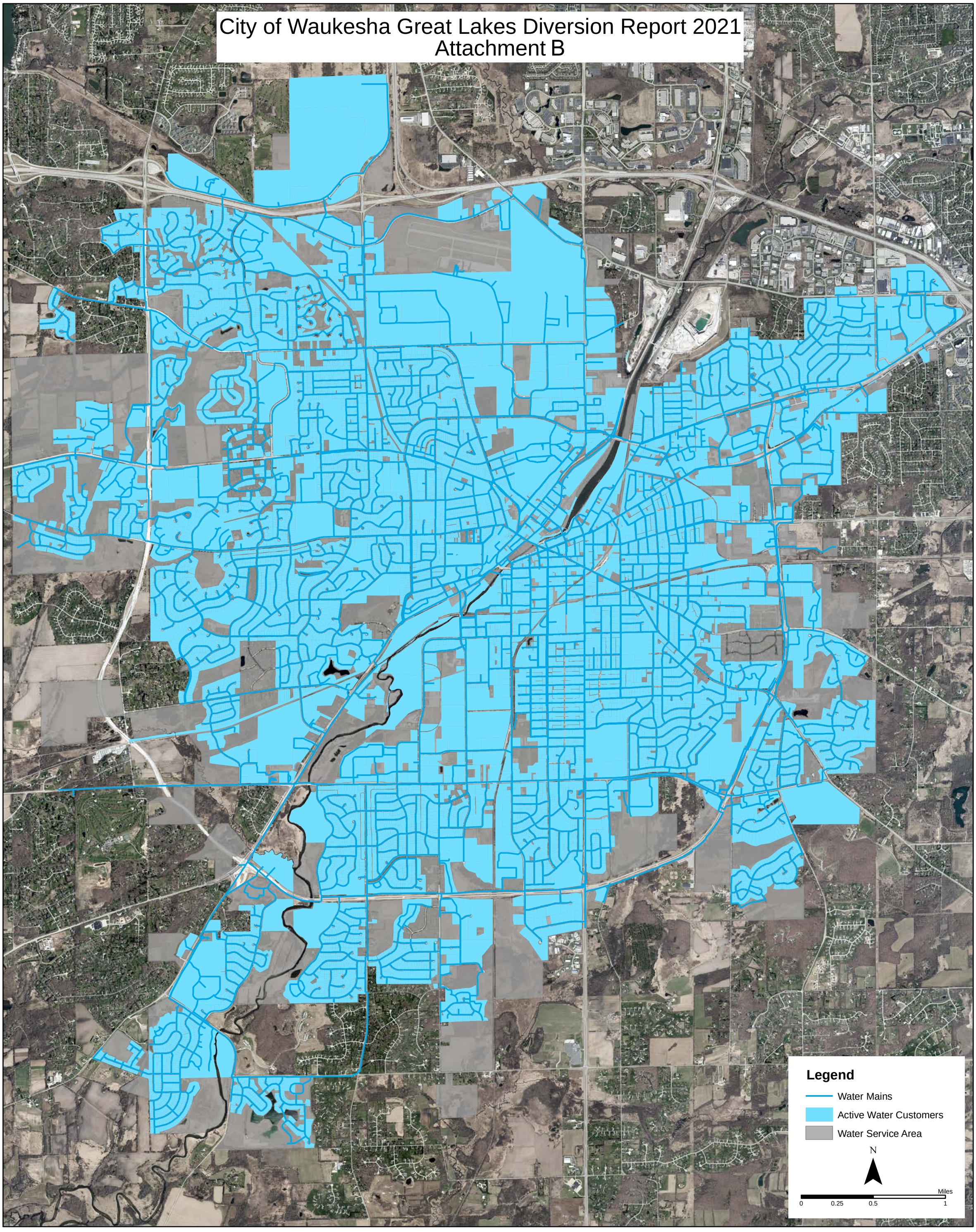
a. Total water pumped has steadily declined
b. Average day pumpage has steadily declined
c. The number of days where >7.8 million gallons needed to be pumped has decreased from a high of 140 in 2005 to a low of 0 in 2017 and 2019.

Ultimately, the Utility must compare it's savings to that of the 2012 Conservation Plan. The plan predicted savings of 167,100,000 by the year 2030. The actual and projected savings are below.



If it stays on track, the Utility will exceed its goal of saving 0.8 mgd by 2050.

City of Waukesha Great Lakes Diversion Report 2021
Attachment B



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Subject	**City of Waukesha Pharmaceutical and Personal Care Products Reduction Program**		
Client	City of Waukesha	**Date**	May 13, 2021
Project	Waukesha Water Utility (WWU) Great Lakes Water Supply Program		
Project No.	D3235900		

The City of Waukesha (City) received approval of its application for diverting Lake Michigan water with return flow on June 24, 2016 (Application Approval). As a condition of the Application Approval, the City is required to implement a Pharmaceutical and Personal Care Products (PPCP) Reduction Program prior to the diversion commencing. The specific requirement of Condition G of the Application Approval includes:

> ***Pharmaceutical and Personal Care Products Recycling and Impacts.*** *The Applicant [City of Waukesha] must implement a comprehensive pharmaceutical and personal care products recycling program and continually use the best available methods to encourage the further reduction of such products into the wastewater as recommended by the Originating Party [Wisconsin Department of Natural Resources].*

The purpose of this document is to summarize the City's plan for complying with Condition G.

1. Background

The City operates the Clean Water Plant (CWP) to provide wastewater treatment to the City residents and a small number of surrounding residential areas. There are various existing programs required as part of the CWP discharge permit that reduce volume and constituents in the wastewater conveyed to the CWP. These programs include an inflow and infiltration reduction program to reduce clear-water in the sewers, a pretreatment program for industrial and commercial users, a mercury reduction program that includes school and dental office mercury reduction and recovery, and a chloride reduction program that includes source reduction for salt use through water softeners and road/sidewalk deicing. The CWP has also partnered for several years with the City's engineering and Department of Public Works (DPW), the police department, and Waukesha County to coordinate efforts related to PPCP reduction. The current PPCP reduction programs by the City include:

Medication Disposal Collection Boxes or Kiosks at the following locations:

- Waukesha Police Department front lobby located at 1901 Delafield Street, Waukesha.
- Waukesha County Sheriff's Department lobby at 515 W. Moreland Boulevard, Waukesha.
- Waukesha Memorial Hospital pharmacy located at 725 American Avenue, Waukesha.
- Walgreens located at 221 E Sunset Drive, Waukesha.
- CVS located at 130 W. Sunset Drive, Waukesha.
- Meijer pharmacy located at 801 E Sunset Drive, Waukesha.

National Prescription Drug Take Back Day Collection Events (twice per year):

- Waukesha Police Department
- Waukesha County Sheriff

Public Education:

- Provides "FAQs" on CWP website regarding proper disposal of unwanted prescription medications with a link to the City police department's drug disposal program.
- City police department website promotes their collection box.
- Waukesha County Sheriff website promotes their collection box.
- Collection event publicity by City and County.

The City will expand their PPCP Reduction Program focusing on source reduction through education, collection, and collaboration as described herein. An anticipated schedule for completing the tasks is summarized below for each program element.

2. Source Reduction Through Education

Public education is an important element of the Program to prevent PPCP from entering the wastewater collection system. By March 1, 2022 the City will implement PPCP source reduction through public education using the following activities:

- Include resource information on City websites, including the CWP, DPW solid waste and recycling, and the police department. Resource information will include topics such as:
    - frequently asked questions;
    - disposal best practices;
    - disposal prohibitions such as never disposing of PPCP in a drain or toilet;
    - permanent collection and drop-off locations;
    - links for additional resources such as Wisconsin Department of Natural Resources and the Product Stewardship Institute;
    - collection and drop-off events;
    - encouraging full use of personal care products (PCP) to minimize product requiring disposal and to reduce purchase of replacement product as a means to achieve source reduction;
    - information regarding the benefits to water quality to the receiving waters; and
    - City contact information for residents to provide comments on the Reduction Program.

  Update as appropriate.
- Utilize the community messaging board on the City's website homepage to include local PPCP collection opportunities. *Complete before collection events.*
- Periodically publish PPCP best-practices and frequently asked questions in DPW newsletter.
- Create periodic fliers for PPCP best practices and frequently asked questions for inclusion in water and sewer bills.
- Utilize other relevant communication tools, such as social media, to educate the public of PPCP collection events. *Complete before collection events.*

3. Source Reduction Through Collection and Reuse

Publicizing pharmaceutical collection opportunities that include continuous drop-off opportunities, such as the police department, or specific drop-off events, will be an important element of the Reduction Program. The City will implement source reduction through pharmaceutical collection using the following activities:

- Promote the pharmaceutical collection location at the police department through media such as newsletters, utility bill mailings, and the City's police and CWP webpage and emails. *Implement by March 1, 2022 and repeat or update as appropriate.*
- Promote pharmacy collection (e.g. Walgreens) through media such as newsletters, utility bill mailings, and the City's webpage, emails and social media. *Implement by March 1, 2022 and repeat or update as appropriate.*
- Coordinate with other entities to promote pharmaceutical drop-off events, such as with the County household hazardous waste collection events, specific events at the police and sheriff departments, or specific community events sponsored by the City (e.g. Earth Day events, farmers markets, festivals, summer music festivals, etc.). *Implement by March 1, 2023 and repeat as appropriate.*
- Promote PCP reuse opportunities available to City residents. *Implement by March 1, 2023 and repeat as appropriate.*

4. Source Reduction Through Collaboration

The City will implement PPCP source reduction through collaboration with existing programs and initiatives by March 1, 2023 using the following activities:

- Develop educational materials that stress the importance of proper disposal of PPCP for significant PPCP sources in the City, such as hospitals, clinics, nursing homes, veterinary clinics, pharmacies, agribusiness if applicable, and hotels. *Repeat as appropriate.*
- Collaborate with local pharmacies to promote increasing the number of collection locations. This will entail contacting pharmacies within the City that do not currently have unused drug drop off programs to see if they could add this service. *Repeat when additional pharmacies open.*
- Obtain resource materials from the WI Pharmaceutical Waste Working Group, through participating in webinars or reviewing literature provided through an email distribution, for consideration in adaptively managing the PPCP program. *Repeat every other year to determine if new information is available.*
- Sign-up for email lists and complete an annual review of the WDNR, Product Stewardship Institute, and other similar websites to obtain resource materials for consideration in adaptively managing the PPCP program.
- Coordinate with County and sheriff's department for updating their public communication platforms, such as websites and social media, with updated information and events within the City. *Repeat as appropriate.*
- Collaborate with potentially significant sources of PCP in the City to identify opportunities for source reduction, reuse, and safe disposal. This may entail contacting hotels/motels within the CWP service area to discuss how personal care products such as unused soap, shampoo, and lotion are managed. *Repeat as appropriate.*
- Identify local opportunities for donating unopened PCP (e.g., to shelters). *Repeat as appropriate.*

5. Reporting and Updating the Program

The City will provide program updates from the past year as part of the annual reporting required for the diversion. The annual report will consist of proposed changes to the program including additional tasks, schedule revisions, and appropriate deletions. The City will review the program during its annual reporting to identify areas where the program could be modified as appropriate. The program will be adaptively managed to reduce PPCP in the wastewater for the City's specific demographics.

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Subject	**City of Waukesha Post-Return Flow Root River Monitoring Program**		
Client	City of Waukesha	**Date**	November 18, 2020
Project	Waukesha Water Utility (WWU) Great Lakes Water Supply Program		
Project No.	D3235900		

Condition I of Application Approval:
Monitoring of Root River Flow. For a minimum of 10 years from the beginning of return flow to the Basin, the Applicant must implement a scientifically sound plan to monitor the mainstem of the Root River to determine changes that may have resulted from return flow (such as volumes, water temperatures, water quality and periodicity of discharge) in order to adapt future return flow to minimize potential adverse impacts or maximize potential benefits to water dependent resources of the Basin source watershed (i.e., Lake Michigan).

Monitoring Objective:

Monitor the mainstem of Root River upstream and downstream of the return flow discharge location to assess the impact and need of adaptively managing the return flow as required in Condition I of the Application Approval.

Monitoring Program:

The monitoring will be completed under a Quality Assurance Project Plan (QAPP) and will utilize certified laboratories. The City of Waukesha (City) and field teams will collaborate with the Wisconsin Department of Natural Resources (Department) if deviation from standard protocols are needed to accommodate site specific conditions. The monitoring will support assessing Condition I through answering the following questions:

- Volume and Periodicity of Discharge
    - What impact did return flow have on the flow rate change in the Root River upstream and downstream of return flow?
    - What impact did the return flow have on the water level?
- Water Temperature
    - Has the river temperature changed upstream and downstream of return flow?
    - Are there seasonal differences to changes in temperature?
    - If there is a temperature change (i.e. increase) with return flow, what is the spatial extent of the impact caused by return flow?

- Water Quality
    - Has the river water quality changed upstream and downstream of return flow with the addition of return flow?
    - Are there seasonal differences to changes?
    - Are there other known upstream watershed impacts that may be influencing these changes?
- Water Dependent Resources
    - Is the macroinvertebrate, fish, or diatom (as provided by the Department) community different in the mainstem of Root River at upstream and downstream locations compared to pre-return flow conditions? What is the spatial extent of the impact caused by return flow?
    - Are the changes natural variability, an indication of potential upstream watershed impacts, or an indication of changes resulting from return flow?

Monitoring Locations:
The City will include monitoring locations upstream and downstream of the return flow outfall. Sample locations near the return flow outfall, including current pre-return flow Sites A, B, C, and D are shown in Figure 1. Post-return flow monitoring locations will be consistent with these locations, and potentially expand to include locations of closer proximity to the return flow outfall. However, because the return flow discharge does not yet exist, and access to Root River must also consider land ownership and permissions, the exact locations of monitoring may be adjusted. To support answering monitoring program questions above, monitoring locations may be added or removed during preparation of the QAPP.

Monitoring Parameters:

The following parameters are anticipated to support the monitoring objectives. To supplement these efforts, the City may incorporate data from third parties, such as the Department and Milwaukee Metropolitan Sewerage District data. Other parameters may be added as necessary to achieve the monitoring objectives. The City will present the Department a final monitoring plan with QAPP procedures prior to commencement of monitoring.

- Volumes and Periodicity of Discharge (Flow Monitoring)
    - The City will continuously measure the return flow rate at the Clean Water Plant (CWP) as described in the WPDES permit. When return flow starts, the pipeline will be new and will have passed all pressure testing requirements. The pipe will also only convey return flow.
    - Since October 2016, the City of Waukesha has contracted with the USGS to collect and host continuous flow data for the Root River Site C, immediately upstream of the return flow outfall. Flow measurement is anticipated to continue at this location.
    - The City anticipates that the CWP return flow measurement and the upstream flow measurement will be equivalent to a downstream flow measurement. The City will measure Root River flow downstream of the return flow discharge (e.g. Site D), after consulting with the USGS. The purpose of this measurement is to directly quantify river flow that includes return flow and to confirm that the Root River flow rate downstream of the return flow is equivalent to the summation of flow from measured a Site C plus the return flow measured at the CWP. The monitoring may be discontinued after a correlation is confirmed for the full range of flow conditions.

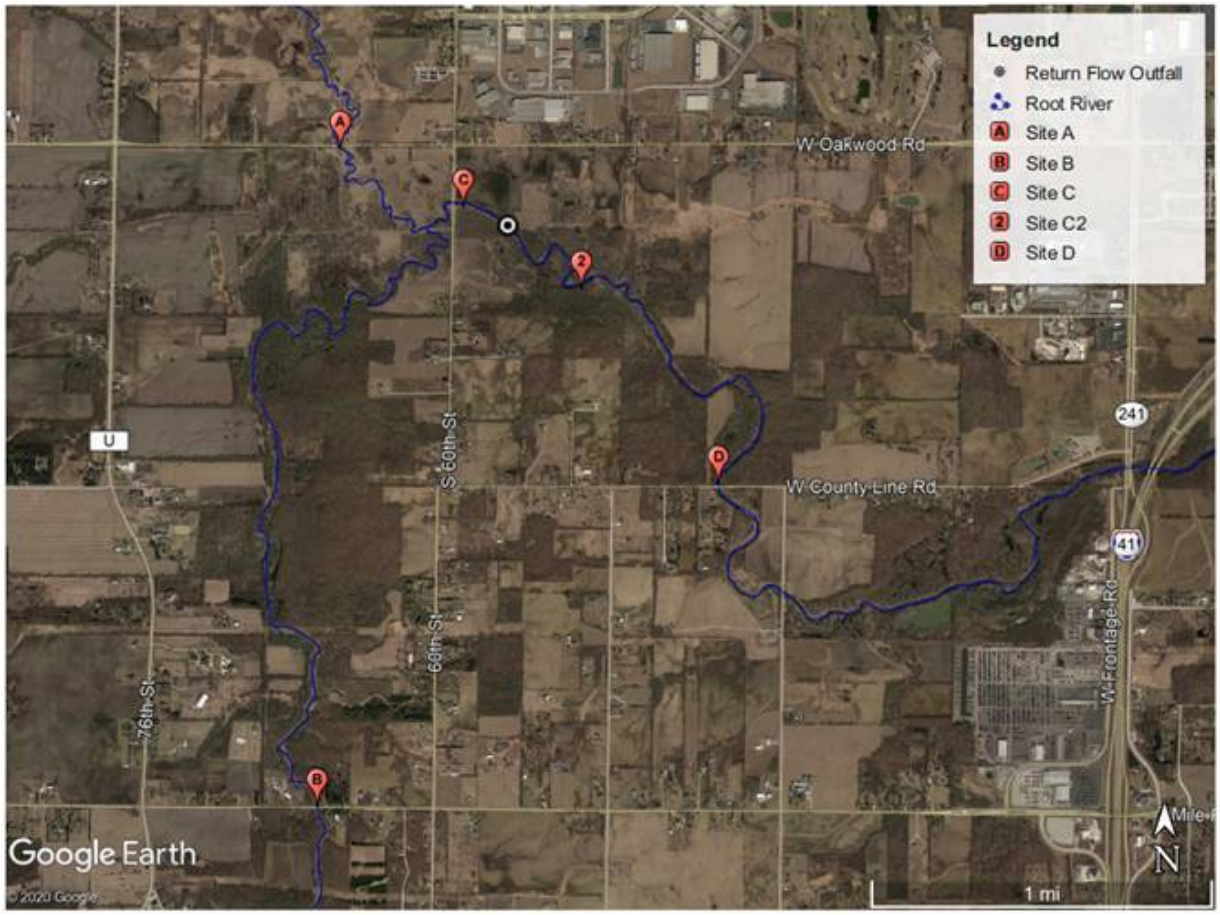
- Temperature
    - The City will continuously monitor temperature of return flow at the CWP and in the return flow discharge structure at the Root River as described in the WPDES permit.
    - Continuous in-stream temperature monitoring of the Root River is anticipated up- and downstream of the return flow outfall and will determine the spatial extent of temperature impacts.
- Water Quality Parameters (Water Chemistry)
    - The City will complete instream water quality monitoring up- and downstream of the return flow outfall using parameters consistent with other similar surface water quality monitoring programs including dissolved oxygen, pH, turbidity, specific conductance, chlorophyll-a, total suspended solids, total phosphorus, ammonia-nitrogen, E-coli, and chlorides.
- Impacts on Water Dependent Resources (Habitat and Biological Monitoring)
    - Habitat assessments and fish and macro-invertebrate sampling will be conducted at various sites to answer the monitoring objectives.
    - Biological monitoring proposed for the post-return flow monitoring will be consistent with the biological monitoring currently being completed for pre-return flow conditions.
    - The City will follow the recommendations within the sampling protocols and collaborate with the Department if site specific conditions require unique considerations.
    - Habitat assessments are anticipated to be completed annually at a time close to the fish sampling. Habitat assessments will include using an algae viewing bucket and following Department protocols for use and data recording. After the first three years of monitoring, habitat assessments may be reduced to once every three years, or annually if significant flow/flood events or changes in habitat are observed in that year. Estimating flow rates will be completed during each monitoring event, regardless if a full habitat assessment is scheduled.
    - The Department has indicated it plans to conduct diatom monitoring on the Root River. The City will include these results in their reporting as available. The City and Department will coordinate monitoring efforts on the Root River.

Reporting and Modifications:

The City will complete an annual assessment of the data and submit a report of the findings to the Department annually by March 1. The report will include return flow monitoring data completed through the WPDES permit. The data used in the annual report will be made available to the public and will be submitted to the Department's SWIMS database with continuous river flow data hosted by USGS.

As the post-return flow monitoring is implemented, some locations and parameters may be adjusted after data is reviewed and statistical trends are evaluated. As the City has done in the past, Department input will continue to be sought when details warrant such collaboration and assistance, and monitoring protocols (such as the Wisconsin Consolidated Assessment and Listing Methodology (WisCALM)) will be considered for adaptively managing the monitoring program.

Figure 1: Locations of Historic and Proposed Root River Monitoring Sites



Station	2021 Status	Aquifer Used	2021 Hours Run Time [1]	2021 Total Output (mg)	Planned Status for 2022	Planned Status After Transition
Well 2	Water Level Monitoring by USGS only	Deep Sandstone	0	0	No change	Unknown
Well 3	Used daily with HMO	Deep Sandstone	5,318	228,178	No change	Maintain for Emergency Use
Well 5	Non-Compliant	Deep Sandstone	348	23,690	No change	Permanently Abandon
Well 6	Non-Compliant	Deep Sandstone	239	31,597	No change	Permanently Abandon
Well 7	Non-Compliant	Deep Sandstone	138	5,952	No change	Maintain for Emergency Use
Well 8	Used daily with HMO and blending with 11 & 12	Deep Sandstone	4,625	559,727	No change	Maintain for Emergency Use
Well 9	Non-Compliant	Deep Sandstone	18	1,404	No change	Maintain for Emergency Use
Well 10	Used daily with HMO	Deep Sandstone	5,056	770,764	No change	Unknown
Well 11	Used daily	Sand and Gravel	3448	30,762	No change	Permanently Abandon
Well 12	Used daily	Sand and Gravel	3,440	101,450	No change	Permanently Abandon
Well 13	Used daily	Sand and Gravel	5,233	169,158	No change	Permanently Abandon

[1] Per requirements of the Stipulation Order, non-compliant wells ca be operated a maximum of 2 days per month per well for sampling and maintenance.