

**PUBLIC SERVICE COMMISSION OF WISCONSIN
REPORT ON WATER CONSERVATION PROGRAMS**

Utility Name: Waukesha Water Utility - 6240
 Report Date: 06/01/2020
 Report Period: 01/01/2019 – 12/31/2019
 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.

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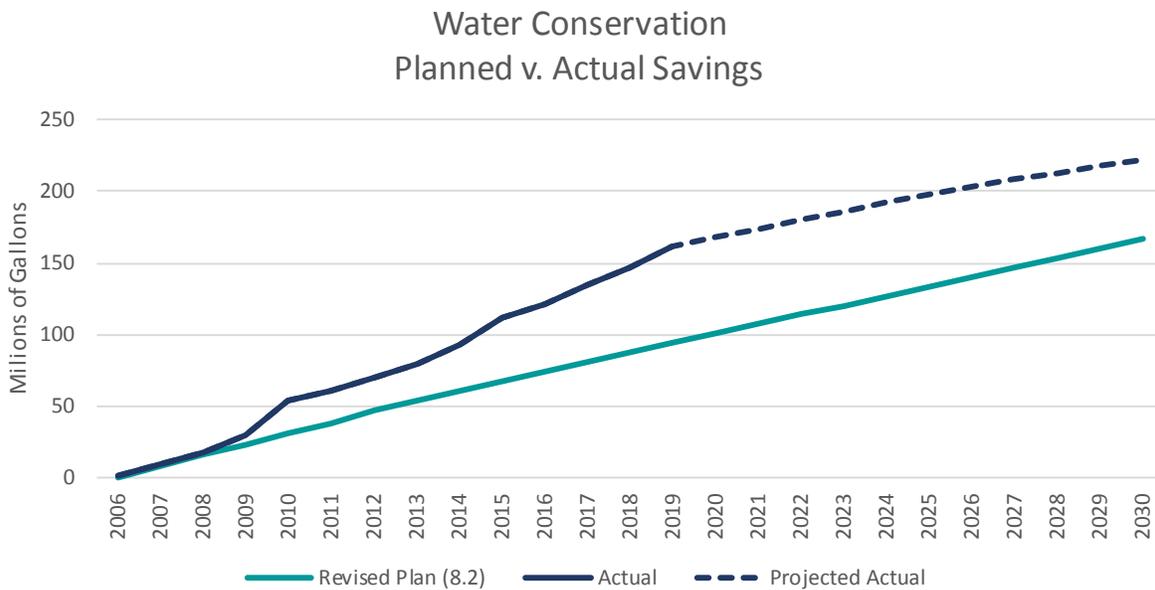
I. EXECUTIVE SUMMARY

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 16%.

Waukesha is exceeding its conservation goals. The 2012 Conservation Plan projected a cumulative savings of 117.8 million gallons by 2019. As shown in the graph below, the Utility is ahead of its 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 its 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-109, the PSC agreed that the same level of costs was reasonable with a revised test year of 2017.

The actual costs since 2015 are as follows:

	Actual				
	2019	2018	2017	2016	2015
<u>Revenue</u>					
Rates	\$ 62,271	\$ 62,271	\$ 62,271	\$ 62,271	\$ 62,271
Sewer Reimbursement	30,000	30,000	30,000	30,123	41,354
	92,271	92,271	92,271	92,394	103,625
<u>Expenses</u>					
Program Administration	8,630	8,954	17,873	15,205	14,493
Customer Outreach and Education	14,875	15,102	22,030	22,440	20,216
Other Program Costs	2,549	2,951	1,544	859	-
Leak Surveys	-	11,450	15,197	10,206	10,290
Toilet Rebates	46,382	17,589	32,824	17,652	11,225
Grants & Incentives	190	15,428	2,819	4,298	36,773
	72,626	71,474	92,287	70,660	92,998
Excess(Deficit)	\$ 19,645	\$ 20,797	\$ (16)	\$ 21,735	\$ 10,627

Program revenue remained consistent from 2018 to 2019. The current rate order (Docket #6240-WR-109), effective on December 1, 2017, 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.

It is important to note that the Utility spent all of the money generated through water rates, \$62,271, while spending \$10,355 of the funding from the City’s Sewer Department. The average excess generated by the program since 2012 has increased from \$10,008 per year in 2018 to \$11,213 per year in 2019.

The most significant expense change between 2019 and 2018 was a increase in toilet rebates (476 vs. 197) as the program made a concerted effort to reach out to large multi-family customers. Offsetting that increase was the elimination of hydrant and lateral leak survey expenses from the program. Those costs are now included under maintenance activities. The Utility plans to continue its efforts of replacing inefficient toilets and promoting its business conservation incentive program in 2020.

III. INCENTIVE PROGRAMS

The Utility has five incentive programs:

1. Toilet Rebate Program
2. Shower Head Rebate Program
3. Rain Barrel Rebate Program
4. A Pilot Rebate Program for Irrigation Controllers
5. 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 2019, the Utility continued to offer the residential toilet and showerhead rebate, as we have done in the past. However, this year, we focused on large multi-families. The Utility made numerous of contacts with large multi-families. Some of the large multi-families changed out a portion of their toilets in 2019. Others decided to go in a different direction – installing 1.6 gpf toilets, which are not covered under the rebate program. The rest of the large multi-families, who were contacted, could be potential candidates for future rebates. The Utility is looking forward to following up with these large multi-families in the near future.

In 2019, the Utility also created a rebate application just for large multi-families, which requires the Utility to pre-inspect the old toilets to ensure the date of the toilets qualify for the rebate. During the pre-inspections, there were a few instances where the Utility found toilets that were leaking and notified the apartment management immediately.

In addition to creating the Multi-Family Rebate Application, the Utility also updated the Residential Rebate form, to inform customers that if they have 5 or more toilets to be changed out, they should complete the Multi-Family Application.

By the end of 2019, there was a total of 476 toilet rebates. This included 72 residential toilets and 404 toilets from multi-families (9 from duplexes/condo units and 395 from large multi-family buildings).

Detailed information pertaining to the toilet rebates are shown on the following pages.



Monterey Apartments – replaced 106 toilets that dated back to the early 1980's.



Woodfield Heights Apartments – replaced 80 toilets that dated back to 1986-1988.



Hartwell Place Apartments – replaced their last 9 toilets that dated back to 1968-1972.



The Meadows Apartments – changed out 100 toilets – most of the toilets dated back to 1972 – but a few were dated 1991.



Willow Creek Apartments – changed out 100 toilets – most of the old toilets dated back to 1987.

The cover letters for the large multi-family toilet rebates are shown on the next 5 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

September 20, 2019

Varin/Monterey, LLC
Attn: Brenten Kuznacic
2725 N University Drive
Waukesha, WI 53188

Re: Toilet Rebates for Varin/Monterey Apartments

Dear Mr. Kuznacic,

Waukesha Water Utility would like to thank you for participating in the toilet rebate program. Your rebate application has been processed for 105 WaterSense toilets at \$95 per toilet and one toilet for a partial rebate at \$25. Please find a check enclosed for \$10,000.

Thank you again, Mr.Kuznacic, 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. 43712

Cover Letter for Monterey 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

November 26, 2019

Woodfield Heights Apartments
Equity Property Management
Attn: Kevin Donohoe
200 W 75th Place
Merrillville, IN 46410

Re: Toilet Rebates for Woodfield Heights Apartments

Dear Mr. Donohoe:

Waukesha Water Utility would like to thank you for participating in the toilet rebate program. Your rebate application has been processed for 20 WaterSense toilets at \$88.88 per toilet and 60 WaterSense toilets at \$94.00 per toilet. Please find enclosed a check for \$7,400.

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 Ciarro
Administrative Services Manager

mka

Enclosure: Check No. 44059

cc: Colleen Swirth

Cover Letter for Woodfield Height 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 19, 2019

JJGF Real Estate 1, LLC
Hartwell Place
Attn: Liane Jones
P. O. Box 264
Pewaukee, WI 53072

Re: Toilet Rebates for Hartwell Apartments

Dear Ms. Jones:

Waukesha Water Utility would like to thank you for participating in the toilet rebate program. Your rebate application has been processed for 9 WaterSense toilets at \$100 per toilet. Please find enclosed a check for \$900.

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

Cover Letter for Hartwell Apartments for 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

November 26, 2019

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

Re: Toilet Rebates for The Meadows Apartments

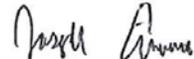
Dear Ms. Gabay:

Waukesha Water Utility would like to thank you for participating in the toilet rebate program. Your rebate application has been processed for 100 WaterSense toilets at \$99.99 per toilet. Please find enclosed a check for \$9,999.99.

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. 44052

cc: Josh Waldoch

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

November 26, 2019

Willow Creek of Waukesha LP
2420 Parklawn Drive
Waukesha, WI 53186

Re: Toilet Rebates for Willow Creek 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 100 WaterSense toilets at \$99.99 per toilet. Please find enclosed a check for \$9,999.99.

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

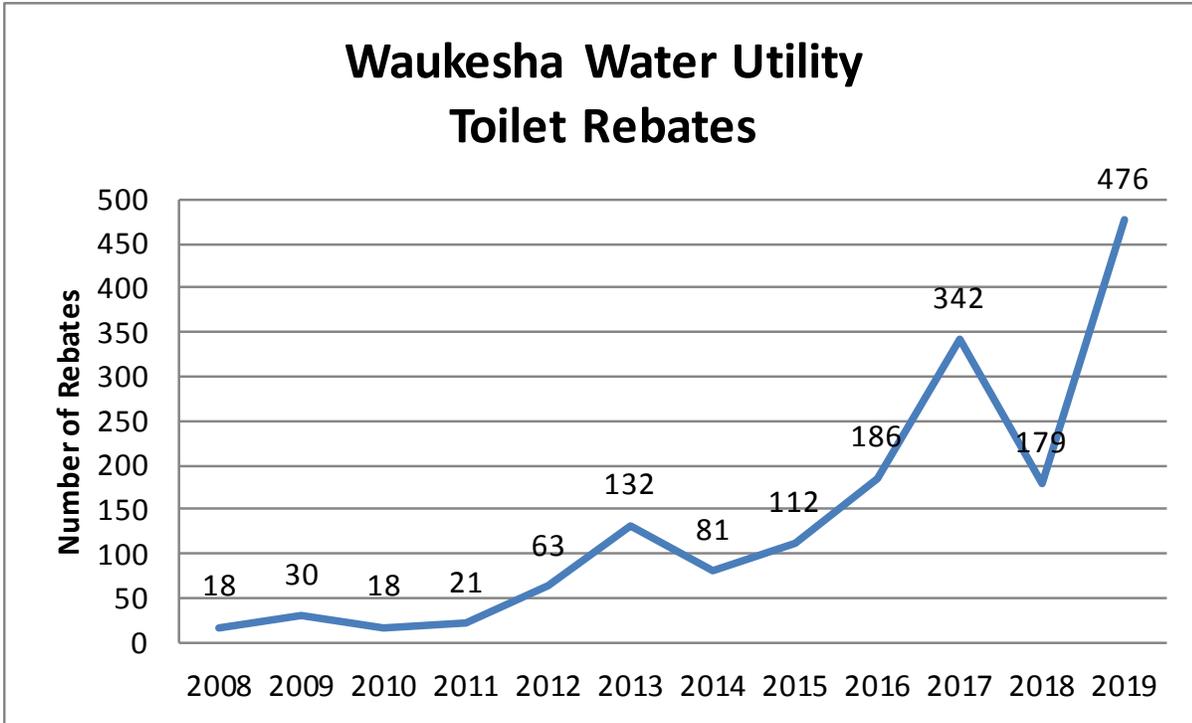
mka

Enclosure: Check No. 44057

cc: Josh Waldoch

Cover Letter for Willow Creek Apartments Toilet Rebates

Historically, the following rebates have been awarded:

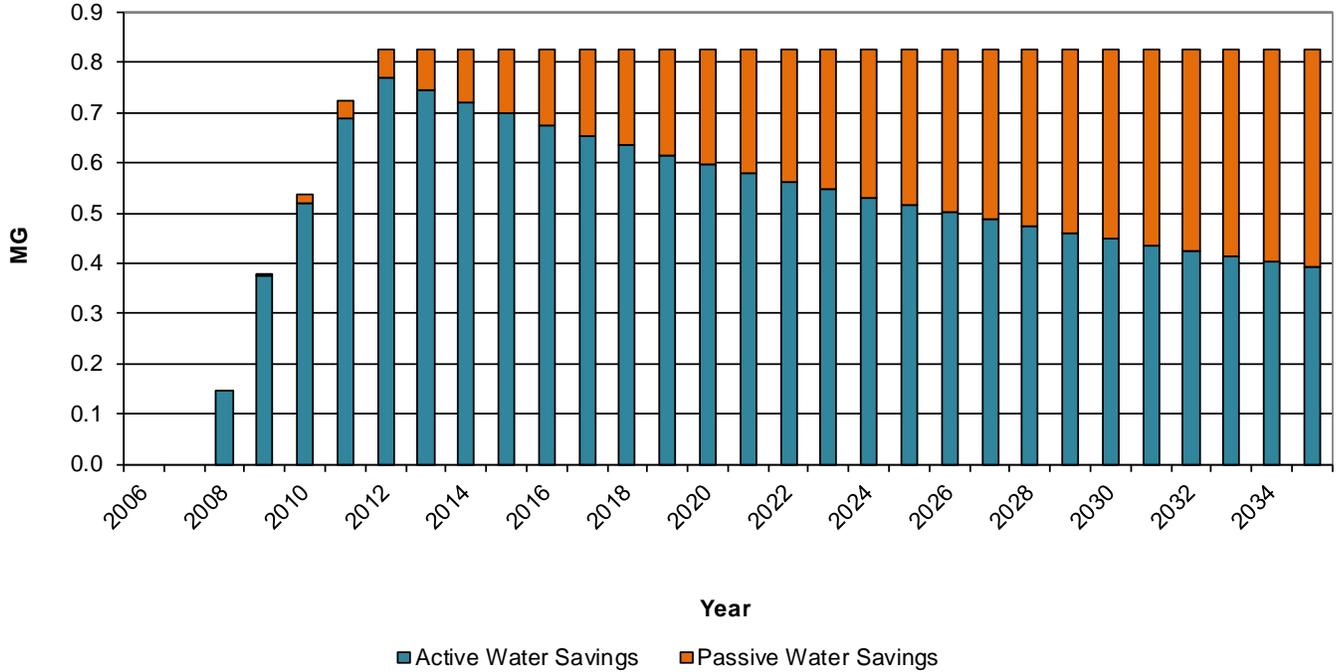


Using the Alliance for Water Efficiency (AWE) Conservation Tracking Tool, the annual cost effectiveness of the program is demonstrated below.

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	656.48	107,924.23	1,884.23	309,763.58	172,657.87	137,105.71	2.87
Commercial	Commercial HE Toilet, Large MF \$100 Rebate	330.44	114,921.44	1,992.13	692,828.70	386,392.95	306,435.76	6.03
Industrial	CII Tank-Type HE Toilet, \$50 Rebate (Industrial)	147.91	475.55	1,948.21	6,263.97	3,492.59	2,771.37	13.17

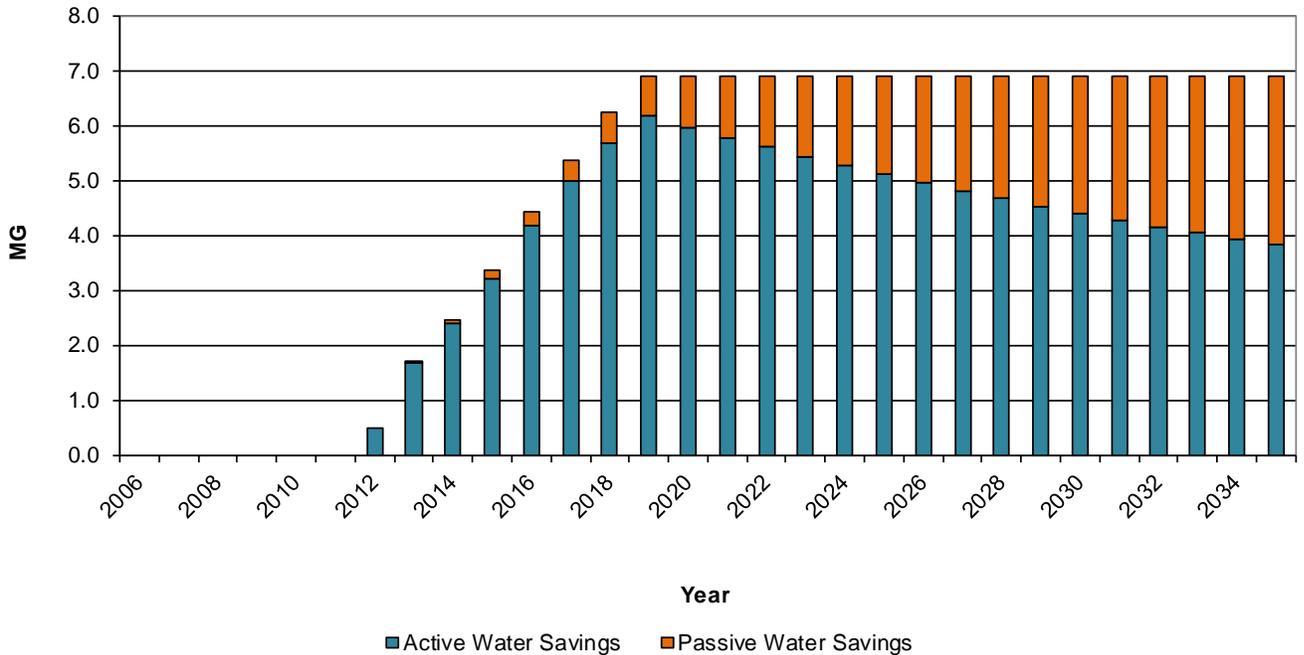
The projected water savings through 2035 is demonstrated by the four graphs below. The first relates to water savings from the \$25 residential rebates.

Residential HE Toilets, \$25 Rebate Annual Water Savings



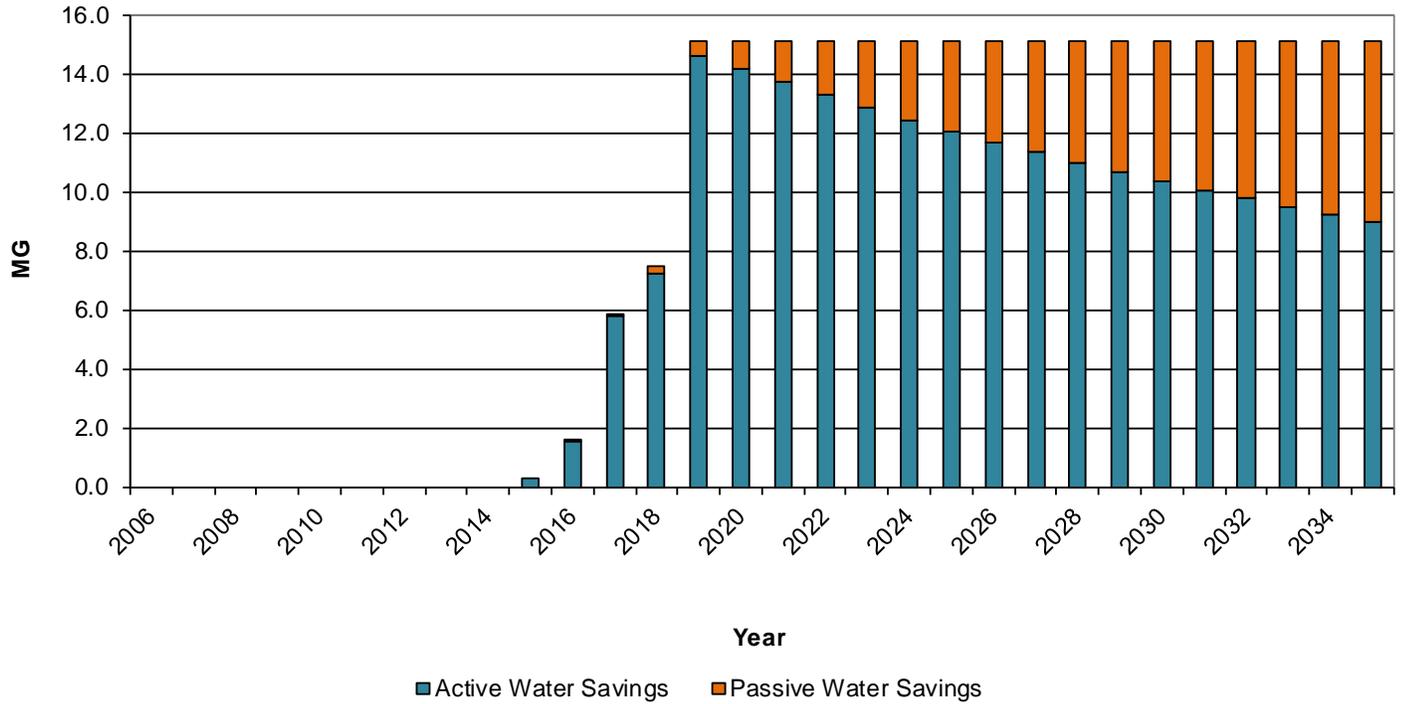
The second graph relates to water saved by the \$100 residential rebates.

Residential HE Toilets, \$100 Rebate Annual Water Savings



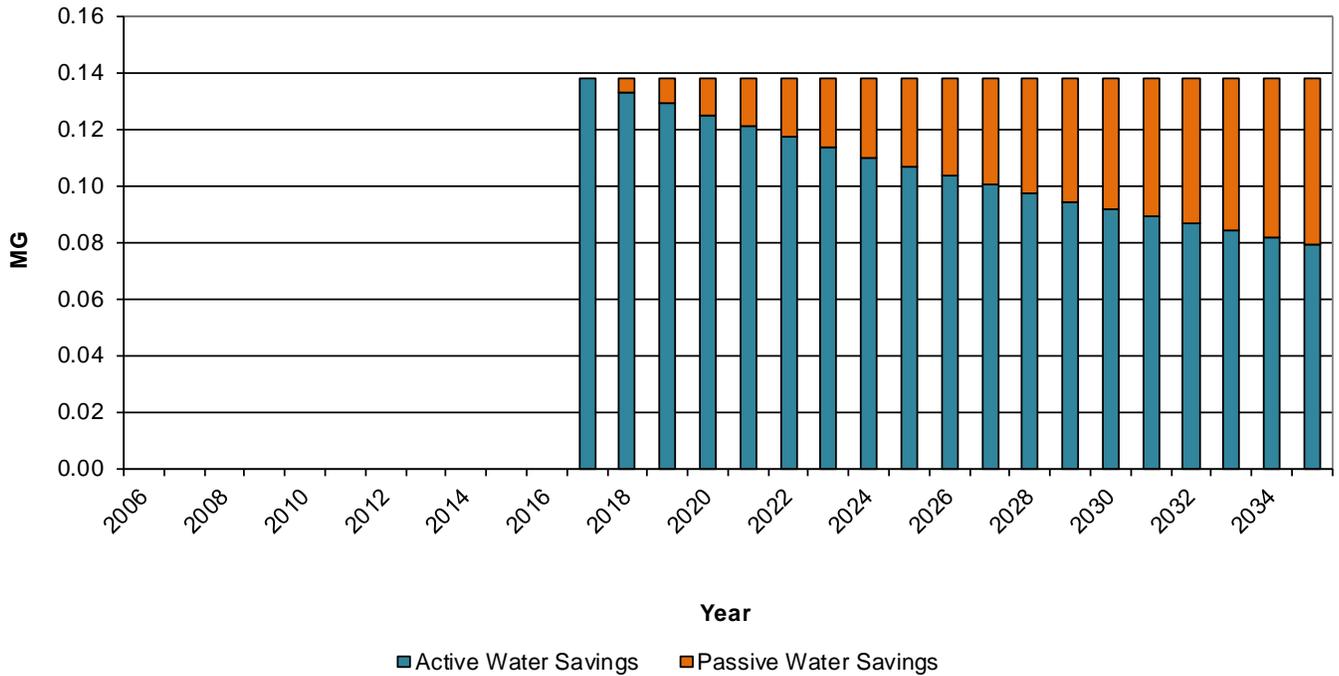
The third graph relates to water saved by the \$100 commercial rebates.

Commercial HE Toilet, Large MF \$100 Rebate Annual Water Savings



The last graph relates to water saved by the \$50 industrial rebates awarded in 2017.

CII Tank-Type HE Toilet, \$50 Rebate (Industrial) Annual Water Savings



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 2019, there were 2 shower head rebates.

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

<u>\$100 Toilet Rebate</u>	<p>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.</p> <p>(Residential customers can save 9,000 – 11,000 gals. of water/year, depending on family size.)</p>
<u>\$25 Shower Head Rebate</u>	<p>Replace a 1992 or Older shower head with a WaterSense model shower head and receive up to a \$25 rebate.</p> <p>(Residential customers can save approximately 2,900 gals. of water/year, and approximately 300 kwh of electricity annually.)</p>

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 <input type="checkbox"/> Occupant <input type="checkbox"/> Account #: _____	
SERVICE ADDRESS (Where toilet/showerhead installed): _____	
MAIL REBATE TO THIS ADDRESS: _____	
CITY: _____	STATE: _____ ZIP: _____
PHONE (Day): _____	PHONE (Evening): _____
EMAIL: _____	Preferred Method of Contact: <input type="checkbox"/> Email <input type="checkbox"/> 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.

_____ Date

Property Owner Signature



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- <input type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> LLC <input type="checkbox"/> 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: <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> Mail <input type="checkbox"/> 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

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.

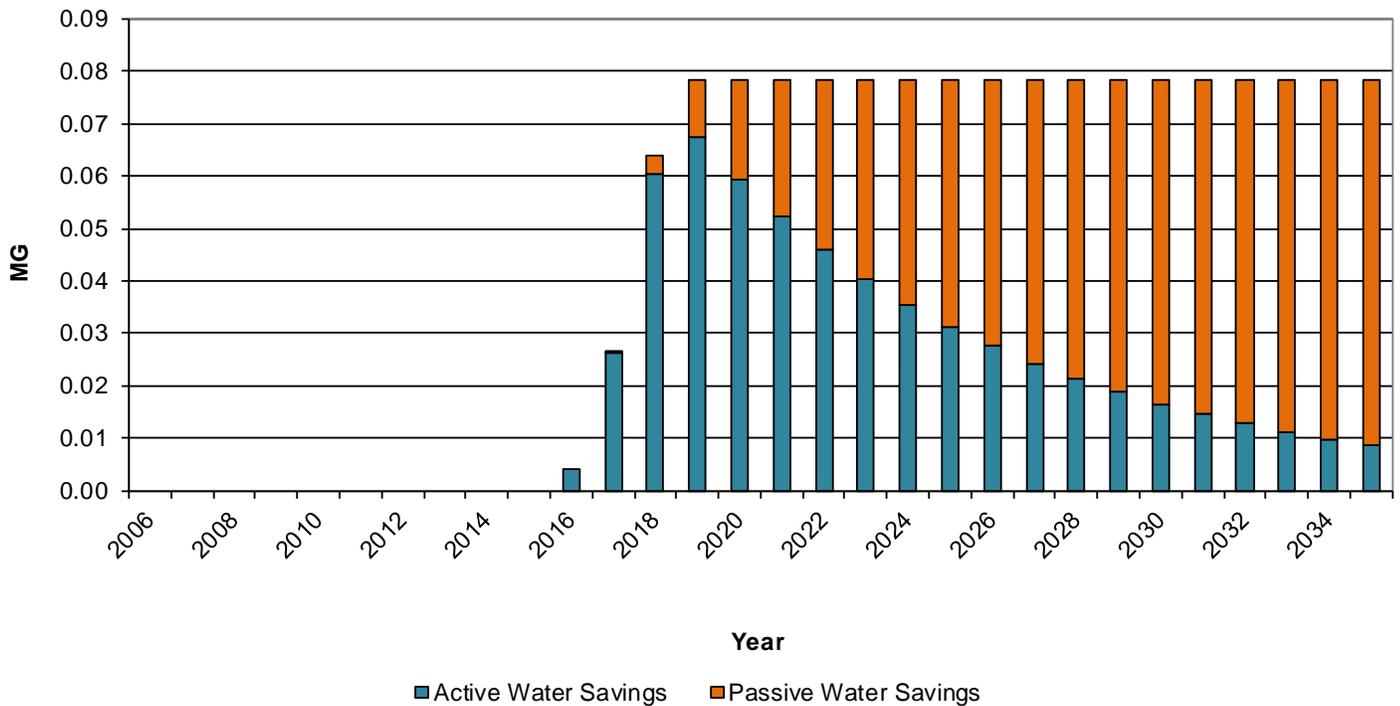
The Utility hopes that as more showerhead programs are implemented, the fixed costs will go down and the program will yield a better ratio.

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	1,382.28	825.52	1,118.63	668.07	368.56	299.51	0.81

The projected water savings through 2035 is demonstrated below.

LF Showerhead Annual Water Savings



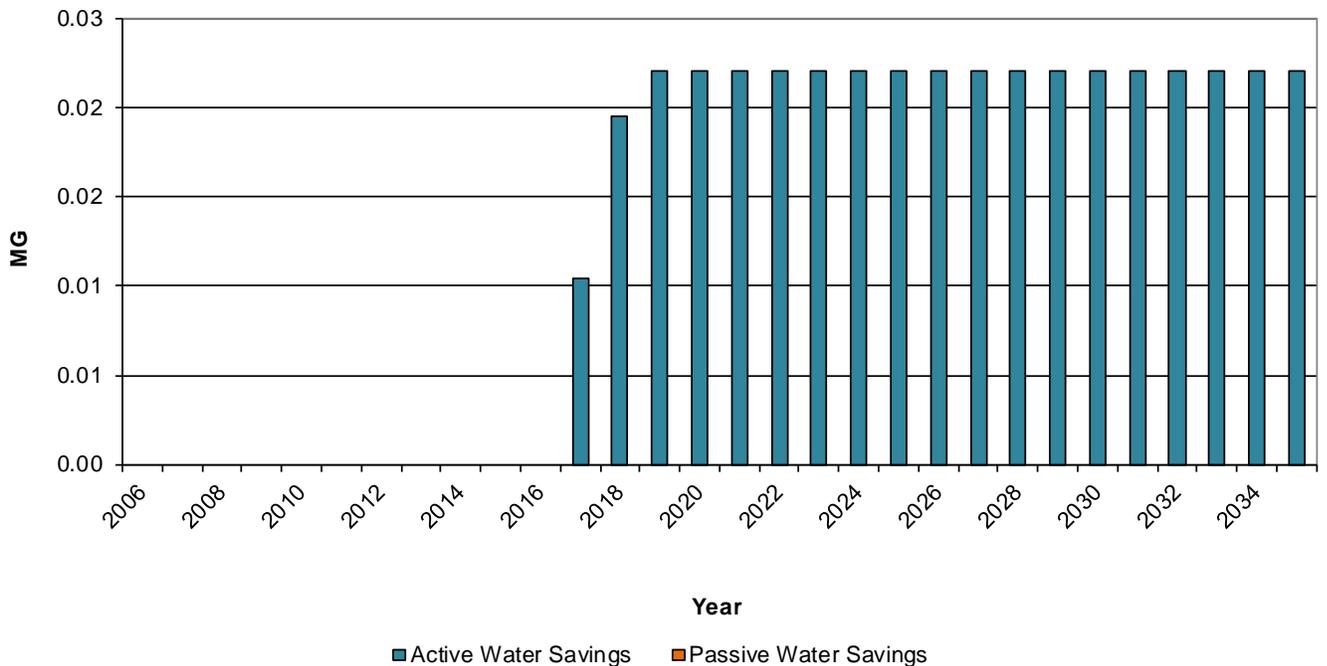


3. Rain Barrel Rebate Program

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 2019, there were 7 rain barrel rebates.

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

Rain Barrel Rebate, \$20 Annual Water Savings





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.)

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



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 _____

WaterSense®



WaterSense labeled Irrigation Controller

4. Rebate Pilot Program for Irrigation Controllers

In 2015, the Utility implemented a pilot rebate program for WaterSense Irrigation Controllers for the new Cloverland Farms Subdivision.

The Utility chose Cloverland Farms subdivision because prior to the rebate program, the Wisconsin Water Conservation Coalition, which the Utility is a partner of, talked with the developer about a partnering opportunity to do a WaterSense Irrigation case study. The developer company was interested in participating and placed a deed restriction on the entire subdivision. The deed restriction is as follows:

If a home is equipped with an irrigation system, they are required to use an EPA WaterSense approved system.

The deed restriction is a great foundation for the Utility's pilot program. Any owner, in this subdivision, who installs a WaterSense labeled controller on their irrigation system would be eligible for a \$175 rebate. (Per WaterSense, the irrigation controllers tell the sprinkler systems "when to turn on and off, use local weather and landscape conditions to tailor watering schedules....[and] allow watering schedules to better match plants' water needs.")

2015 - 2018, the Utility contacted all 3 builders of this subdivision and informed/reminded them about the rebate program. In 2017, we received one inquiry about the irrigation controllers from a customer living in this area. According to the inquiry, most of the residents in this subdivision do not have automatic sprinklers. In 2020, we will review this program and make a decision as to whether we should continue this pilot program for this subdivision.

A copy of the Irrigation Rebate Application is shown on the next page.



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



**Cloverland Farms \$175 Rebate for
 WaterSense Labeled Irrigation Controller**

Contact Information:

Owner: _____ Acct No.: _____

Address: _____

Daytime Phone: _____ Email Address: _____

Irrigation Controller Information:

Date of Purchase: _____ Controller Purchase Price: _____

Manufacturer: _____ Model Name: _____

Model Number: _____ Is this a 'WaterSense' labeled Controller? _____

Date Installed: _____ Installer: _____

Has the Controller been set to comply with Waukesha's annual Sprinkling Ordinance as stated below? _____

<u>Addresses Ending With An</u>	<u>May Water On These Days</u>	<u>During These Hours</u>
Odd Number	Tuesdays & Saturdays	Before 9 a.m. or After 5 p.m.
Even Number	Thursdays & Sundays	Before 9 a.m. or After 5 p.m.

Rebates will be provided on a first come/first served basis, subject to availability of funds. All questions on this form must be answered and **a copy of the receipt must be attached** in order to qualify for a rebate. I agree to a possible site visit by Waukesha Water Utility for installation verification. Please note, it could take up to six weeks to receive the rebate check. For more information on water saving tips or WaterSense labeled products, please visit our website at www.waukesha-water.com.

 Property Owner's Signature Date

p:\conservation\2015\cloverlandfarmsrebate



© Can Stock Photo

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. In 2015, the Utility added more structure to the program which consists of the following:

- The program focuses on the replacement of capital assets – incenting organizations to replace equipment with new technology that will conserve water.
- In order to receive an incentive, an Incentive Application must be completed and the company must receive approval prior to the new technology being ordered.
- The Utility ranks the Applications with respect to pay back periods and cost benefit ratios; and incentives are granted in rank order until the annual funds are exhausted.

Over the past 5 years, letters with the Incentive Application were mailed to the top 50 water users in the commercial, public, and industrial sectors.

In 2019, we received a two calls about the incentive program. These could be potential candidates for grants in the near future. In the meantime, the Utility focused on the large multi-family toilet change outs and plans to followup with these two companies, along with reaching out to other industrial/commercial customers, in 2020.



115 DELAFIELD STREET
WAUKESHA, WI 53188-3615

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

August 1, 2019

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 no later than September 16, 2019; 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

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): <input type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> LLC <input type="checkbox"/> 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: <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> Mail <input type="checkbox"/> E-mail		
Account #:		Customer #:			

Business Type (Check ONE):

- School Food Processing Food Service Lodging Other _____
- Healthcare Manufacturing, type _____

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:

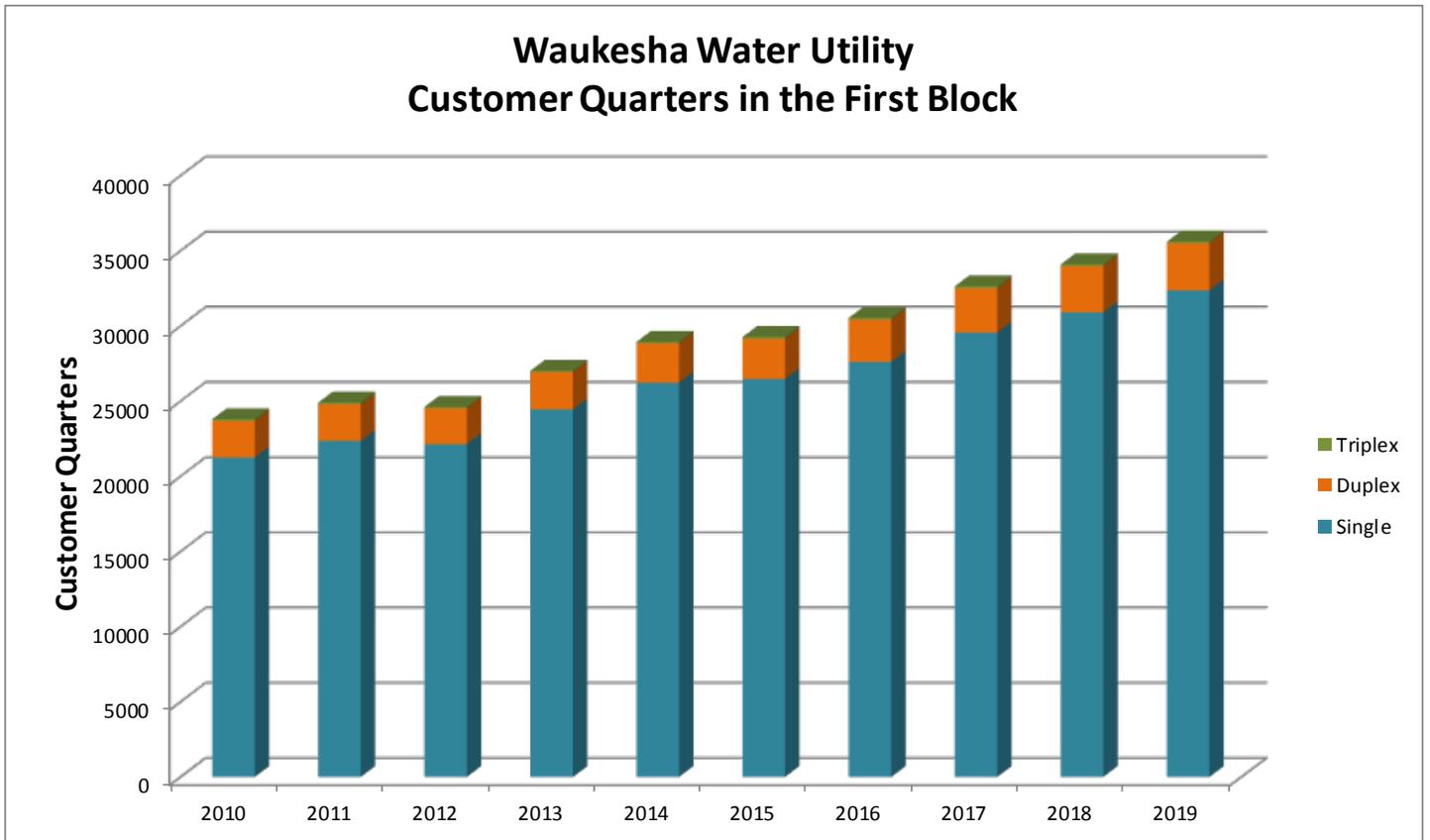
Name: _____

Signature: _____

Date: _____

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. Since 2010 the number of customers that have been in the first block has increased. Regardless, it is impossible to know whether the rate structure alone is causing an increase in "frugal" customers, or whether other conservation measures are involved.



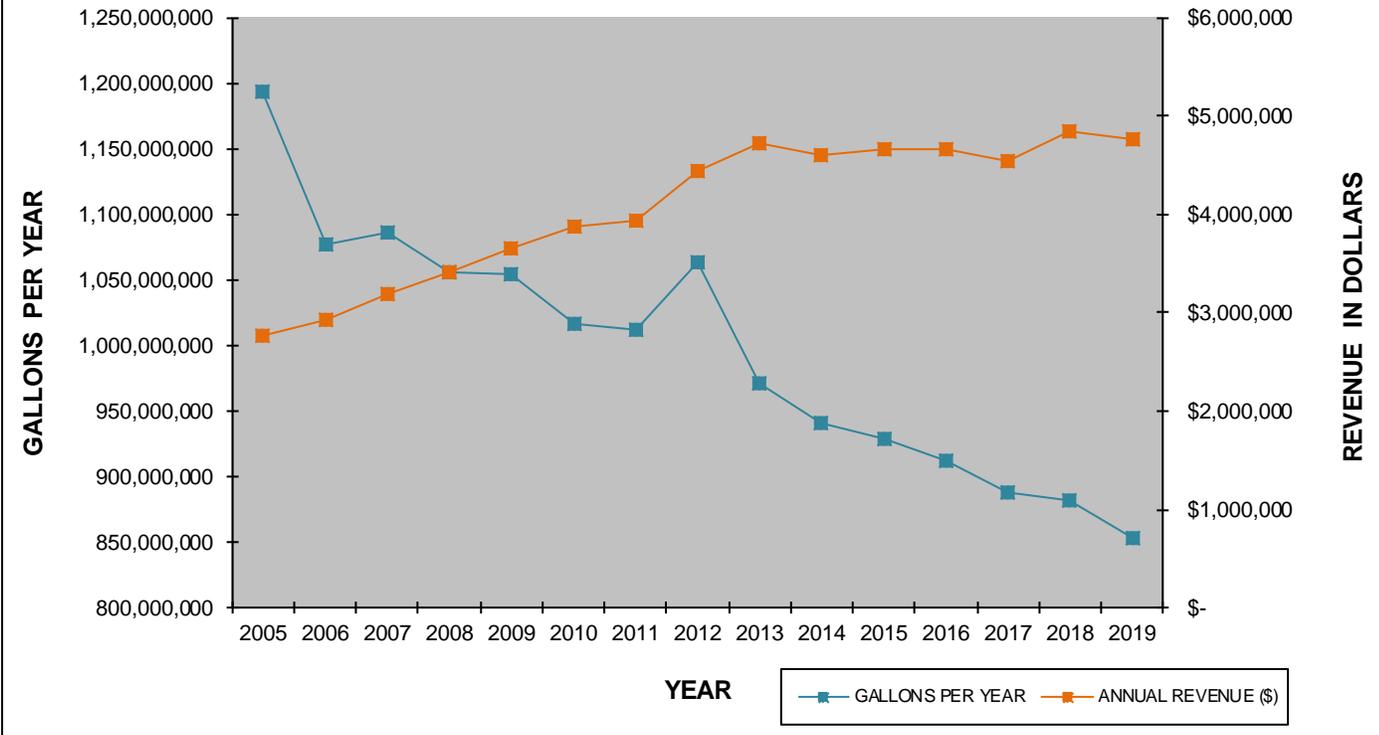
The detailed data, on the next three pages, supplements the consumption history; supplied in previous years' reports. In order to provide a more accurate picture of "# of customers," volumes associated with final reads have been excluded.

Interval	Single Family Consumption																			
	2015				2016				2017				2018				2019			
	# 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	6,715	42.5%	43,099,000	22.3%	7,072	44.4%	45,343,100	24.3%	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%
10,001-30,000	8,830	55.8%	137,314,900	71.1%	8,592	54.0%	131,111,300	70.1%	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%
>30,000	269	1.7%	12,756,600	6.6%	260	1.6%	10,477,200	5.6%	249	1.5%	10,734,000	5.8%	246	1.5%	15,850,800	8.3%	225	1.4%	9,396,500	5.1%
Q Total	15,814	100.0%	193,170,500	100.0%	15,924	100.0%	186,931,600	100.0%	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%
	Quarter 2				Quarter 2				Quarter 2				Quarter 2				Quarter 2			
0-10,000	7,042	44.2%	44,187,600	23.4%	7,253	45.1%	45,445,300	24.3%	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%
10,001-30,000	8,592	54.0%	131,722,000	69.7%	8,536	53.1%	130,437,000	69.6%	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%
>30,000	290	1.8%	12,975,200	6.9%	290	1.8%	11,490,800	6.1%	247	1.5%	10,005,600	5.5%	233	1.4%	10,789,800	5.9%	184	1.1%	7,462,000	4.3%
Q Total	15,924	100.0%	188,884,800	100.0%	16,079	100.0%	187,373,100	100.0%	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%
	Quarter 3				Quarter 3				Quarter 3				Quarter 3				Quarter 3			
0-10,000	5,875	36.6%	37,547,200	16.8%	6,160	38.1%	39,552,100	17.6%	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%
10,001-30,000	9,422	58.8%	153,361,500	68.6%	9,233	57.1%	149,021,400	66.4%	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%
>30,000	737	4.6%	32,575,600	14.6%	767	4.7%	35,959,100	16.0%	554	3.4%	24,290,900	11.6%	530	3.2%	23,825,600	11.4%	472	2.9%	20,887,900	10.3%
Q Total	16,034	100.0%	223,484,300	100.0%	16,160	100.0%	224,532,600	100.0%	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%
	Quarter 4				Quarter 4				Quarter 4				Quarter 4				Quarter 4			
0-10,000	6,842	42.7%	44,013,900	22.2%	7,121	44.1%	45,894,500	23.6%	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%
10,001-30,000	8,757	54.7%	136,245,600	68.8%	8,669	53.7%	133,649,700	68.7%	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%
>30,000	412	2.6%	17,644,200	8.9%	344	2.1%	14,907,700	7.7%	401	2.5%	16,839,200	8.6%	252	1.5%	11,063,900	6.0%	238	1.4%	9,877,100	5.4%
Q Total	16,011	100.0%	197,903,700	100.0%	16,134	100.0%	194,451,900	100.0%	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%
	Annual				Annual				Annual				Annual				Annual			
0-10,000	6,619	41.5%	168,847,700	21.0%	6,902	42.9%	176,235,000	22.2%	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%
10,001-30,000	8,900	55.8%	558,644,000	69.5%	8,758	54.5%	544,219,400	68.6%	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%
>30,000	427	2.7%	75,951,600	9.5%	415	2.6%	72,834,800	9.2%	363	2.2%	61,869,700	8.0%	315	1.9%	61,530,100	8.0%	280	1.7%	47,623,500	6.4%
Total	15,946	100.0%	803,443,300	100.0%	16,074	100.0%	793,289,200	100.0%	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%

Interval	Two Family Consumption															
	2015			2016			2017			2018			2019			
	# 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	673	48.7%	8,714,400	27.9%	712	52.0%	9,143,600	31.3%	729	53.8%	9,374,000	32.3%	763	56.9%	10,045,100	34.8%
20,001-35,000	526	38.1%	13,840,000	44.4%	509	37.9%	13,424,700	45.9%	470	34.7%	12,415,400	42.8%	433	32.3%	11,187,700	38.8%
>35,000	183	13.2%	8,641,300	27.7%	147	10.7%	6,648,500	22.8%	157	11.6%	7,214,600	24.9%	144	10.7%	7,628,900	26.4%
Q Total	1,382	100.0%	31,195,700	100.0%	1,368	100.0%	29,216,800	100.0%	1,356	100.0%	29,004,000	100.0%	1,340	100.0%	28,861,700	100.0%
	Quarter 2			Quarter 2			Quarter 2			Quarter 2			Quarter 2			
0-20,000	704	50.8%	9,137,500	30.5%	722	52.6%	9,220,200	31.6%	745	55.0%	9,499,700	34.2%	786	58.7%	10,225,400	37.4%
20,001-35,000	523	37.8%	13,724,500	45.7%	513	37.4%	13,637,400	46.7%	469	34.6%	12,085,400	43.5%	411	30.7%	10,666,400	39.0%
>35,000	158	11.4%	7,146,100	23.8%	137	10.0%	6,321,800	21.7%	140	10.3%	6,228,600	22.4%	142	10.6%	6,482,800	23.7%
Q Total	1,385	100.0%	30,008,100	100.0%	1,372	100.0%	29,179,400	100.0%	1,354	100.0%	27,813,700	100.0%	1,339	100.0%	27,374,600	100.0%
	Quarter 3			Quarter 3			Quarter 3			Quarter 3			Quarter 3			
0-20,000	638	46.2%	8,364,700	25.5%	680	49.7%	8,980,200	29.3%	715	53.0%	9,462,200	31.7%	754	56.4%	9,834,700	34.3%
20,001-35,000	539	39.0%	14,439,900	44.0%	508	37.2%	13,525,100	44.1%	470	34.9%	12,318,400	41.2%	416	31.1%	10,797,500	37.7%
>35,000	205	14.8%	10,041,200	30.6%	179	13.1%	8,152,700	26.6%	163	12.1%	8,100,300	27.1%	168	12.6%	8,006,500	28.0%
Q Total	1,382	100.0%	32,845,800	100.0%	1,367	100.0%	30,658,000	100.0%	1,348	100.0%	29,880,900	100.0%	1,338	100.0%	28,638,700	100.0%
	Quarter 4			Quarter 4			Quarter 4			Quarter 4			Quarter 4			
0-20,000	663	48.0%	8,462,400	27.1%	701	51.5%	9,146,800	30.0%	759	56.3%	10,137,200	35.1%	772	57.7%	9,886,500	35.9%
20,001-35,000	533	38.6%	13,940,600	44.7%	482	35.4%	12,669,000	41.6%	451	33.5%	11,783,600	40.7%	415	31.0%	10,648,300	38.7%
>35,000	186	13.5%	8,817,000	28.2%	179	13.1%	8,630,600	28.3%	137	10.2%	6,996,300	24.2%	150	11.2%	6,980,600	25.4%
Q Total	1,382	100.0%	31,220,000	100.0%	1,362	100.0%	30,446,400	100.0%	1,347	100.0%	28,917,100	100.0%	1,337	100.0%	27,515,400	100.0%
	Annual			Annual			Annual			Annual			Annual			
0-20,000	670	48.4%	34,679,000	27.7%	704	51.5%	36,490,800	30.5%	737	54.5%	38,473,100	33.3%	769	57.4%	39,991,700	35.6%
20,001-35,000	530	38.3%	55,945,000	44.7%	503	36.8%	53,256,200	44.6%	465	34.4%	48,602,800	42.0%	419	31.3%	43,299,900	38.5%
>35,000	183	13.2%	34,645,600	27.7%	161	11.7%	29,753,600	24.9%	149	11.0%	28,539,800	24.7%	151	11.3%	29,098,800	25.9%
Total	1,383	100.0%	125,269,600	100.0%	1,367	100.0%	119,500,600	100.0%	1,351	100.0%	115,615,700	100.0%	1,339	100.0%	112,390,400	100.0%

Interval	Three Family Consumption																			
	2015				2016				2017				2018				2019			
	# 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	25	33.3%	364,300	17.3%	27	36.5%	358,600	18.7%	35	46.7%	512,100	27.5%	33	43.4%	456,700	24.7%	31	40.8%	415,200	21.2%
20,001-60,000	49	65.3%	1,636,200	77.6%	47	63.5%	1,560,400	81.3%	38	50.7%	1,174,800	63.1%	42	55.3%	1,324,500	71.6%	43	56.6%	1,396,300	71.2%
>60,001	1	1.3%	107,900	5.1%	-	0.0%	-	0.0%	2	2.7%	175,000	9.4%	1	1.3%	69,200	3.7%	2	2.6%	150,500	7.7%
Q.Total	75	100.0%	2,108,400	100.0%	74	100.0%	1,919,000	100.0%	75	100.0%	1,861,900	100.0%	76	100.0%	1,850,400	100.0%	76	100.0%	1,962,000	100.0%
	Quarter 2				Quarter 2				Quarter 2				Quarter 2				Quarter 2			
0-20,000	27	36.0%	398,800	20.2%	29	38.7%	365,700	20.1%	33	44.0%	475,900	28.1%	35	46.7%	513,400	28.5%	34	44.2%	437,500	24.4%
20,001-60,000	46	61.3%	1,412,700	71.4%	45	60.0%	1,380,500	75.7%	42	56.0%	1,216,900	71.9%	40	53.3%	1,288,800	71.5%	43	55.8%	1,355,000	75.6%
>60,001	2	2.7%	166,600	8.4%	1	1.3%	76,800	4.2%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Q.Total	75	100.0%	1,978,100	100.0%	75	100.0%	1,823,000	100.0%	75	100.0%	1,692,800	100.0%	75	100.0%	1,802,200	100.0%	77	100.0%	1,792,500	100.0%
	Quarter 3				Quarter 3				Quarter 3				Quarter 3				Quarter 3			
0-20,000	28	36.4%	386,200	17.0%	27	35.1%	372,300	18.6%	24	31.6%	316,200	17.0%	30	39.5%	406,200	20.4%	31	40.3%	376,200	18.0%
20,001-60,000	44	57.1%	1,441,000	63.6%	49	63.6%	1,566,800	78.1%	52	68.4%	1,548,800	83.0%	43	56.6%	1,339,900	67.3%	44	57.1%	1,336,800	63.8%
>60,001	5	6.5%	440,000	19.4%	1	1.3%	67,400	3.4%	-	0.0%	-	0.0%	3	3.9%	245,300	12.3%	2	2.6%	382,600	18.3%
Q.Total	77	100.0%	2,267,200	100.0%	77	100.0%	2,006,500	100.0%	76	100.0%	1,865,000	100.0%	76	100.0%	1,991,400	100.0%	77	100.0%	2,095,600	100.0%
	Quarter 4				Quarter 4				Quarter 4				Quarter 4				Quarter 4			
0-20,000	30	39.5%	400,400	19.8%	30	40.0%	413,300	22.0%	31	40.8%	430,300	22.3%	27	36.0%	363,900	17.8%	31	41.3%	418,400	21.1%
20,001-60,000	44	57.9%	1,448,000	71.8%	44	58.7%	1,379,100	73.4%	44	57.9%	1,440,400	74.6%	44	58.7%	1,336,000	65.3%	43	57.3%	1,384,700	70.0%
>60,001	2	2.6%	169,200	8.4%	1	1.3%	87,700	4.7%	1	1.3%	60,500	3.1%	4	5.3%	345,800	16.9%	1	1.3%	175,400	8.9%
Q.Total	76	100.0%	2,017,600	100.0%	75	100.0%	1,880,100	100.0%	76	100.0%	1,931,200	100.0%	75	100.0%	2,045,700	100.0%	75	100.0%	1,978,500	100.0%
	Annual				Annual				Annual				Annual				Annual			
0-20,000	28	36.3%	1,549,700	18.5%	28	37.5%	1,509,900	19.8%	31	40.7%	1,734,500	23.6%	31	41.4%	1,740,200	22.6%	32	41.6%	1,647,300	21.0%
20,001-60,000	46	60.4%	5,937,900	70.9%	46	61.5%	5,886,800	77.2%	44	58.3%	5,380,900	73.2%	44	58.3%	5,289,200	68.8%	43	56.7%	5,472,800	69.9%
>60,001	3	3.3%	883,700	10.6%	1	1.0%	231,900	3.0%	1	1.0%	235,500	3.2%	2	2.6%	660,300	8.6%	1	1.6%	708,500	9.1%
Total	76	100.0%	8,371,300	100.0%	75	100.0%	7,628,600	100.0%	76	100.0%	7,350,900	100.0%	76	100.0%	7,689,700	100.0%	76	100.0%	7,828,600	100.0%

RESIDENTIAL WATER USE AND REVENUE 2005-2019



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 and the Utility had a rate increase approved by the PSC, effective December 1, 2017.

Rates per 1,000 Gallons December 1, 2017	
Gallons	Commercial, Industrial, Public
0 - 75,000	\$3.60
75,001 - 1,500,000	\$3.40
Over 1,500,000	\$3.00

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.

Billing Class	Metered Usage for Non-Residential						
	2013 (Gallons)	2014 (Gallons)	2015 (Gallons)	2016 (Gallons)	2017 (Gallons)	2018 (Gallons)	2019 (Gallons)
Commercial	795,377,000	780,972,720	774,316,900	763,290,200	729,873,000	707,267,000	696,184,000
Industrial	266,539,000	270,877,200	262,476,500	237,069,700	232,668,900	230,557,100	220,675,300
Public	92,508,000	92,618,300	99,075,700	83,040,900	72,384,600	67,338,800	65,913,900
Irrigation	n/a	n/a	n/a	n/a	n/a	4,447,476	2,879,000

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 some that affect all customer classes. The additional programs include the following:

1. Irrigation Rates (for all customer classes)
2. Sprinkling Ordinance (for all customer classes)
3. Irrigation Ordinance (for all customer classes)
4. Sewer Ordinance Change (for all customer classes)
5. Yard Sign Campaign (for all customer classes)
6. Waukesha Rain Barrel Promotion Program (for all customer classes)
7. Rain Garden Plants Sale (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. 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.

The Utility notified customers about the new irrigation rates by mailing letters to accounts that were billed water only (for the accounts that had a public sprinkling meter) and to accounts who previously had and still have sewer credit meters. A copy of the letter is shown on the following page.

In addition to the mailings, the account type for the public sprinkling meters was changed on our billing system to an Irrigation account; and the volumetric rate was increased to \$5.70 per thousand gallons, as opposed to the residential or commercial step rate.

Finally, an Application for Irrigation Meters was created and placed on our website. This Application includes a cover letter, instructions on what needs to be done to get an irrigation meter installed, and a meter installation specification sheet.

In 2019, the Utility received 4 applications for irrigation meters. A copy of the Irrigation Application, with all of its attachments, is also 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

Dear Customer:

We would like to inform you that the Wisconsin Public Service Commission (PSC) has approved our application to offer irrigation rates to our customers. You have a meter that is subject to these new rates.

Irrigation rates are designed with two goals in mind. First, to bill for water that is used outside and is not collected into the sewer system. Second, to encourage the conservation of a limited resource; one that we will soon have to buy from Lake Michigan.

The rates that became effective on December 1, 2017 are as follows:

Quarterly Charge			
<u>Meter Size</u>	<u>\$</u>	<u>Meter Size</u>	<u>\$</u>
5/8	27.00	3	198.00
3/4	27.00	4	270.00
1	45.00	6	438.00
1 1/4	66.00	8	666.00
1 1/2	75.00	10	960.00
2	117.00	12	1260.00
Volumetric Charge		\$5.70 per 1,000 gallons	

If you have questions about these new irrigation rates or would like to install an irrigation meter, please contact us at 262 521 5272.

Thank you,

The Waukesha Water Utility

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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 \$120.00 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 December 1, 2017, are as follows:

Quarterly Charge			
Meter Size	\$	Meter Size	\$
5/8	27.00	3	198.00
3/4	27.00	4	270.00
1	45.00	6	438.00
1 1/4	66.00	8	666.00
1 1/2	75.00	10	960.00
2	117.00	12	1260.00
Volumetric Charge		\$5.70 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



Waukesha Water Utility

IRRIGATION METER

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

1. 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.

2. 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.

3. Pay the application fee (\$120)

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 and radio

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

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Instruction Sheet for Irrigation Meters



Waukesha Water Utility

APPLICATION FOR IRRIGATION METER

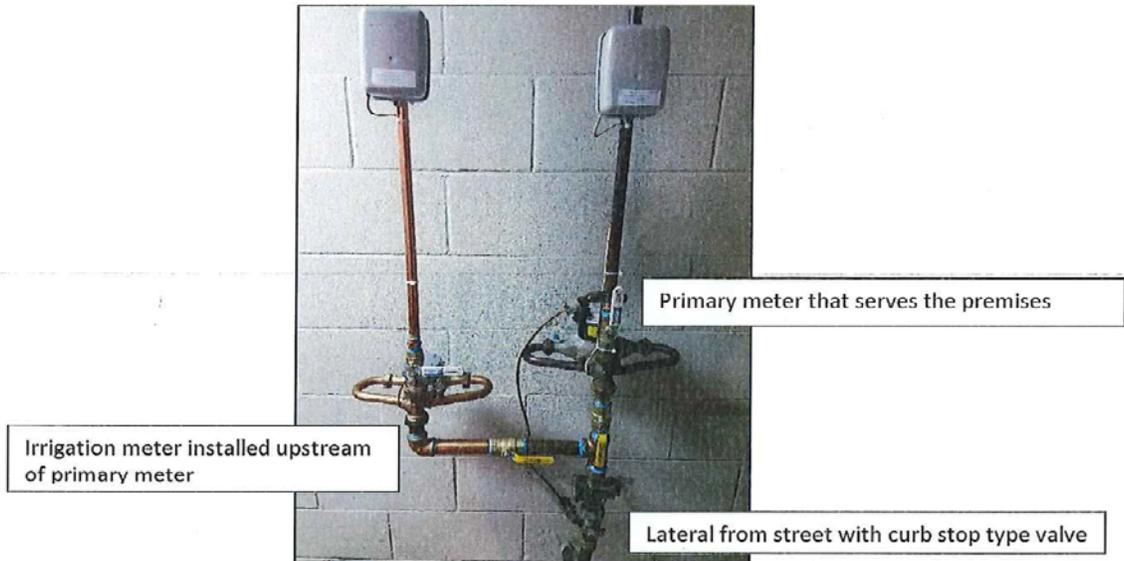
1. Property Address _____
2. Building Type Single Family Duplex Triplex Apartment (> 4 units) Condo
3. Owner's Name _____ Phone _____
4. Owner's Address _____
5. Plumber's Name _____ Phone _____
6. Plumber's Address _____
7. Please list the number of water using devices that will be measured by this 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 _____

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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.

P:\ADMIN\Applications for New Services\Irrigation Meter App\Irrigation Meter Ap 3 18.docx

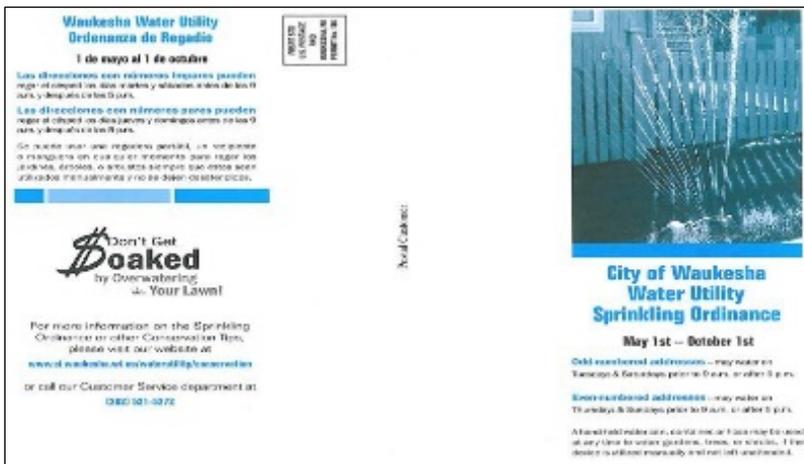
In addition to the Irrigation Rates, the Utility also uses the next seven programs (previously listed) to encourage conservation during the summer months.

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

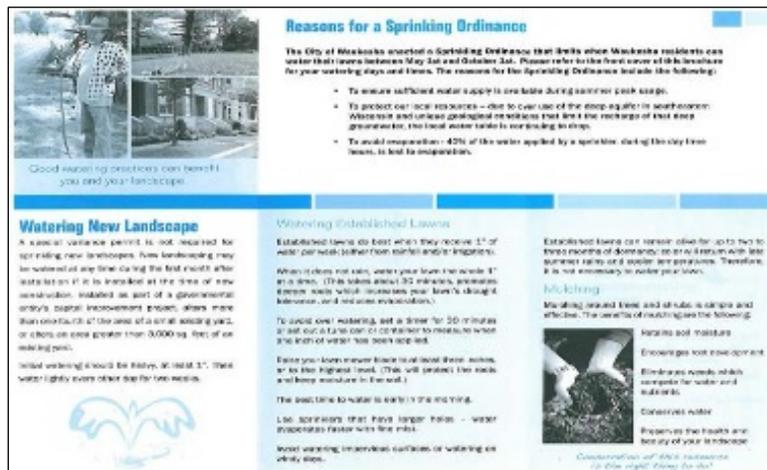
2. Sprinkling Ordinance

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, **Bill stuffers** are sent to all customers each year beginning in April and ending in June. The stuffers are designed to remind customers of the Ordinance. A copy of the stuffer is below.

**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

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

Street signs, alerting the public to the Ordinance, have been placed on every major street.



Time Warner Cable aired a **public service announcement** that addressed the Sprinkling Ordinance in 2012. The same announcement is broadcast annually on the City's TV25. TV25 airs information pertaining to local government and community events.

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:

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

Before citations are issued, **Notices are sent to violators** to encourage them to comply. In 2019, due to the amount of rainfall this past year, the lawns were green for the majority of the summer and there were no violators reported to us.

For Immediate Release

Press Release

July 2019 - With the arrival of hot 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; along with a yard sign, that can be picked up at 115 Delafield Street, that reads “My Brown Lawn is Green” to show your dedication to conservation.

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:

Dear Water Utility Customer:

It has been observed that you have been sprinkling at your property during unauthorized periods, specifically on _____ at _____ a.m./p.m.

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

Great Lakes Application

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.

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) 531-5272.

Save Money & More Lush: Join City Brown Lawns in "GREEN" Campaign. Since established trees go dormant in the summer and turn green again with the summer rain, watering the grass is unnecessary.

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.



Last updated 06/05/2015

Sprinkling Ordinance & Tips Posted on the Website

WaterSense®



3. Landscape Irrigation System Ordinance

In May of 2015, the Utility began working on an ordinance to incent the installation of water efficient irrigation systems. With the assistance of DJ's Sprinkler Systems and Milwaukee Sprinkler Systems, the City Building Inspector, and the City Attorney, the Utility drafted the ordinance and permitting documents. The Wisconsin Public Service Commission was unaware of other utilities in the state that had ordinances, so Waukesha analyzed aspects of the ordinances from Dallas and Denver.

Ordinance 19.175, Landscape Irrigation Systems, was adopted in the fourth quarter of 2015 by the Common Council. In short, the ordinance exists 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. Waukesha Water Utility is a WaterSense partner and as such relied on the research WaterSense had already done. They found that a Water Sense controller can save a home between 30-50% on its summer water bills, and reduces landscape run off by as much as 71%.

The administrative duties are performed by the City Building Inspector's Office and, to a much lesser degree, the Water Utility. The Inspector's Office performs the plan review, issues the permit, and retains the records surrounding the installation of the systems. The Utility will educate the public about the new ordinance and supply the Inspector's Office with the permitting forms.

In 2019, there was 1 permit for new residential accounts.

Copies of the application, instructions and contractor certificate can be found below.



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/department/building/FORMS.htm>

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

Application for Irrigation System Permit

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

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



4. **Sewer Ordinance Change** (Sprinkling Credit Meters)

In December 2016, Waukesha's Sewer Credit Meter Ordinance was revised to better support Waukesha's water conservation efforts. The recent Ordinance change was focused on eliminating water use for activities that are considered non-essential – such as outdoor water use.

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, as of January 1, 2017, sewer credit meter accounts, installed for more than seven years, will no longer receive a credit.

Sewer credit meters installed for less than seven years will be phased out. The Utility calculated that it takes an average of seven years for customers to recover the money they spent for the meter and installation costs. Therefore, sewer credit meters installed between January 1, 2010 and December 31, 2016 will expire seven years from the date they were installed.

In 2019, the Utility mailed 10 letters to customers who reached their 7 year phase out period and were scheduled to have their sewer credit discontinued. A copy of the letter is shown on the following page.

There are 157 sewer credit accounts remaining.



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](mailto:contactus@waukesha-water.com)

February 2019

**RE: Sewer Credit Ordinance Change**  
Service Address, Account Number

Dear Customer Name:

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 May 20, 2019, 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

## 5. My Brown Lawn is Green Yard Sign Campaign

Furthermore, the Utility continued 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.



## 6. Rain Barrel Promotion Program

In addition to Waukesha Water Utility's new rain barrel rebate program, as mentioned previously in Section II under Incentives, the Utility also helps promote the Waukesha School District's and Waukesha County's rain barrel sales.

To help advertise the rain barrels, the Utility sends out bill inserts; and any time a customer calls and requests information about a rain barrel, we inform them about these two local programs. In addition, we promote rain barrels at all public outreach events.

Waukesha County Water  
Conservation Coalition

Rain Barrel Project



- 💧 Store rainwater for later use
- 💧 Reduces runoff to help our rivers and streams
- 💧 Reduces pumping of groundwater for watering plants
- 💧 Saves you money by saving water
- 💧 Naturally soft water is great for watering plants and washing windows or cars
- 💧 Many local sources of barrels

Clean Water—One Barrel at a Time

## 7. Rain Garden Plant Sales & Free Workshops

In addition to promoting rain barrels, the Utility also helps promote Waukesha County's annual plant sales for rain gardens and their free workshops.

### Spring Gardening - Spring Workshop Series

**Where:** Retzer Nature Center

**From:** 3/9/2019 9:00:00 AM **To:** 3/9/2019 12:00:00 PM

[Registration is free, but required by Friday, March 8.](#)

8:45 a.m. Light refreshments begin

9:00 a.m. Rain Gardens & Rain Barrels: learn about the benefits of rain gardens and how to install a rain barrel at home.

9:45 a.m. Gardening for Pollinators with Zannah Crowe from Johnson's Gardens

11:00 a.m. Home Composting: learn about creating your own compost

11:30 a.m. Plan Your Spring Garden: get ideas from Master Gardeners on getting the most out of your garden

#### **Facebook Event**

Rain Barrels & Compost Bins Will be On Sale during the event!

\*All attendees will receive 20% Off In-Stock Native Plants Coupon from Johnson's Nursery

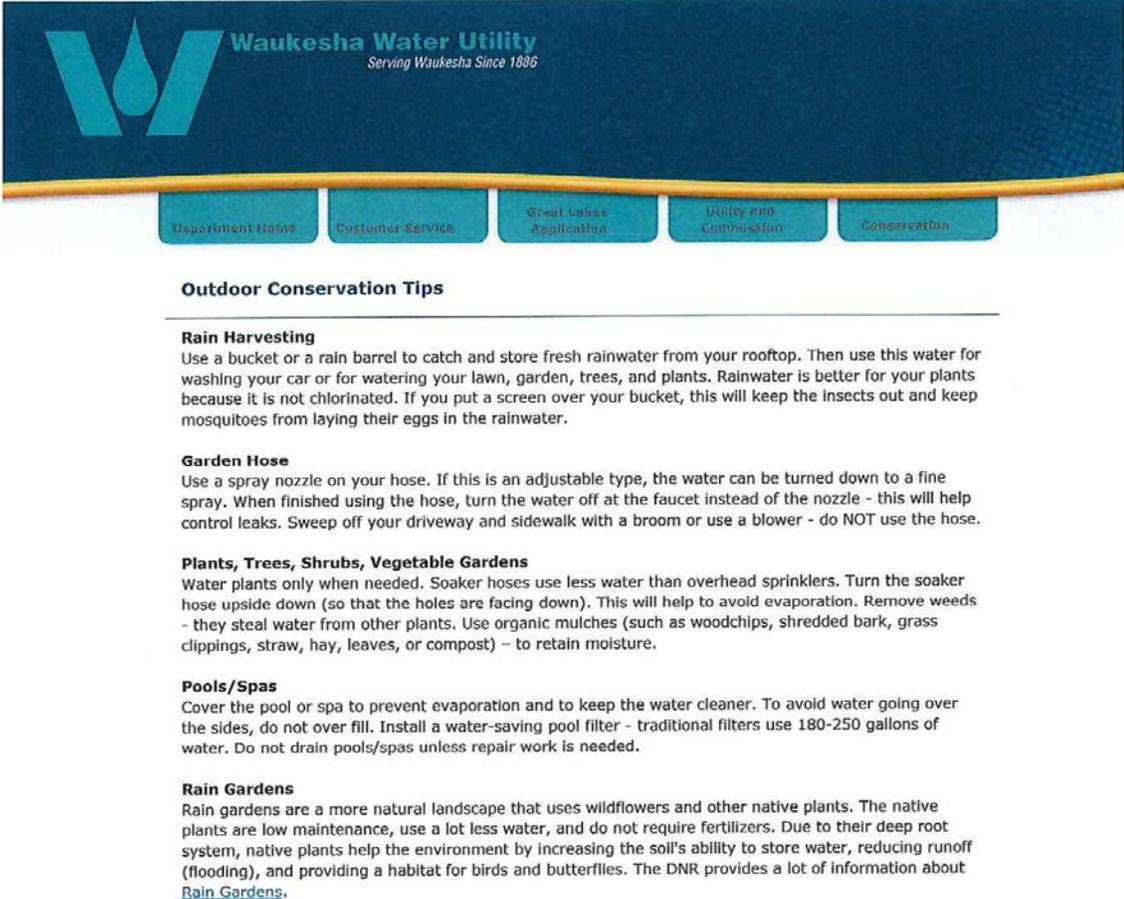
Sponsored by [Johnson's Nursery, Inc.](#)

Advertisement for Waukesha County's Rain Barrels, Rain Garden, & Workshops

## 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.

[City of Waukesha](#) | [Mayor's Office](#) | [Common Council](#) | [Contact Us](#)



**Waukesha Water Utility**  
Serving Waukesha Since 1886

Department News | Customer Service | Great Lakes Application | Utility and Commission | Conservation

### Outdoor Conservation Tips

**Rain Harvesting**  
Use a bucket or a rain barrel to catch and store fresh rainwater from your rooftop. Then use this water for washing your car or for watering your lawn, garden, trees, and plants. Rainwater is better for your plants because it is not chlorinated. If you put a screen over your bucket, this will keep the insects out and keep mosquitoes from laying their eggs in the rainwater.

**Garden Hose**  
Use a spray nozzle on your hose. If this is an adjustable type, the water can be turned down to a fine spray. When finished using the hose, turn the water off at the faucet instead of the nozzle - this will help control leaks. Sweep off your driveway and sidewalk with a broom or use a blower - do NOT use the hose.

**Plants, Trees, Shrubs, Vegetable Gardens**  
Water plants only when needed. Soaker hoses use less water than overhead sprinklers. Turn the soaker hose upside down (so that the holes are facing down). This will help to avoid evaporation. Remove weeds - they steal water from other plants. Use organic mulches (such as woodchips, shredded bark, grass clippings, straw, hay, leaves, or compost) - to retain moisture.

**Pools/Spas**  
Cover the pool or spa to prevent evaporation and to keep the water cleaner. To avoid water going over the sides, do not over fill. Install a water-saving pool filter - traditional filters use 180-250 gallons of water. Do not drain pools/spas unless repair work is needed.

**Rain Gardens**  
Rain gardens are a more natural landscape that uses wildflowers and other native plants. The native plants are low maintenance, use a lot less water, and do not require fertilizers. Due to their deep root system, native plants help the environment by increasing the soil's ability to store water, reducing runoff (flooding), and providing a habitat for birds and butterflies. The DNR provides a lot of information about [Rain Gardens](#).

Last updated 06/04/2015

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 2019, was at a fourteen 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 |
| 2005                                                | 2,838,403        | 1,333,367      | 47.0%                  | 1,496,931          | 737,230        | 49.2%                  | 708,458            | 370,121        | 52.2%                  | 500,991          | 279,850        | 55.9%                  |
| 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%                  |
| <b>Average</b>                                      |                  |                | <b>44.6%</b>           |                    |                | <b>48.9%</b>           |                    |                | <b>49.6%</b>           |                  |                | <b>52.6%</b>           |

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).

WaterSense®



### 9. Pre-Rinsed Spray Valves

In November 2015, the Utility kicked off a new water 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.

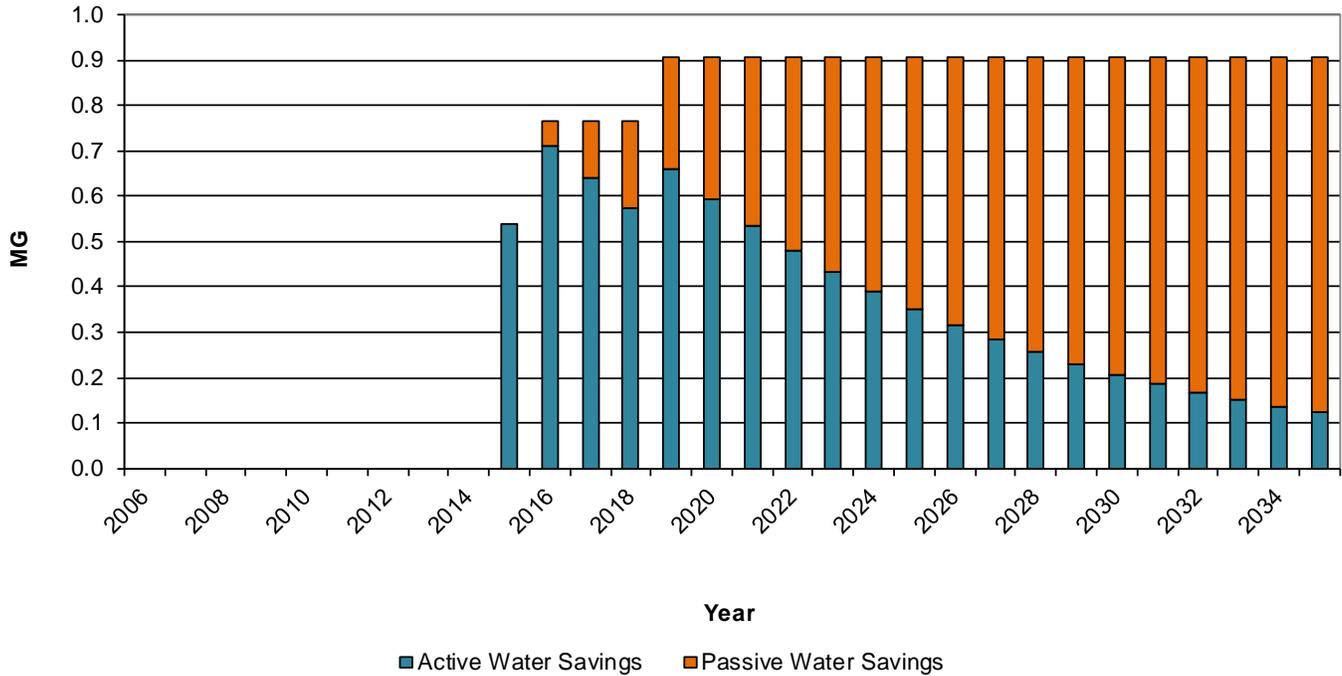
In 2019, the Utility changed out 6 pre-rinsed spray valves. The large customers that participated in this change out program consisted of the following:

- 5 Restaurants
- 1 Assisted Living Facility

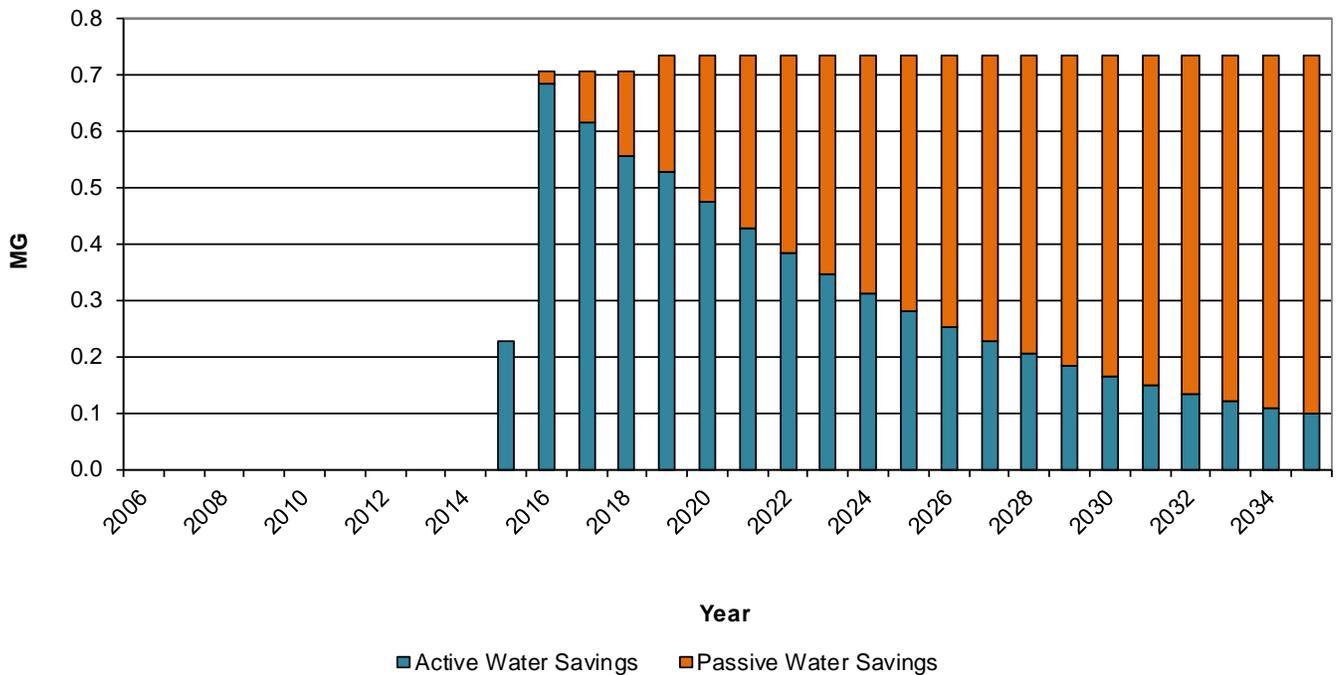
The following page shows the annual cost effectiveness of the program, along with the projected water savings through 2035, for both commercial and public accounts.

| 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”.

City of Waukesha | Mayor's Office | Common Council | Contact Us

Waukesha Water Utility  
Serving Waukesha Since 1886

Department HomeCustomer ServiceGreat Lakes ApplicationUtility and CommodityConservation

- [How Much Water You Use](#)
- [Ways to Conserve](#)
- [Sprinkling Ordinance](#)
- [Community Outreach and Education](#)
- [2012 Water Conservation Plan \(4.8 MB\)](#)
- [PSC Conservation Report \(4.5 MB\)](#)
- [News Room](#)



Conservation

---

### Why Conservation is Important

Water is precious because it is essential for life and it is a limited resource. Of all the water on Earth, we have only 1% to use. 97% of the planet's water is located in the ocean and due to its salt content is not easily used for drinking. Another 2% is frozen at the poles in the form of icebergs and glaciers.

But if this reason seems too big or global, consider what is happening locally.

In the past, our primary aquifer provided an abundance of high quality water. However, that deep aquifer is covered by a thick layer of shale rock that restricts recharge by rain or snowmelt. It is also shared by many communities in southeastern Wisconsin and northeastern Illinois. Years of pumping in the region have severely reduced the level of groundwater in the aquifer, while increasing contaminants like radium. And adding or switching to shallow aquifer wells instead would have permanent adverse effects on thousands of acres of wetlands.

Our ratepayers know that continued reliance on groundwater is increasingly expensive. More importantly, it is not environmentally sustainable. We are applying to use Lake Michigan water instead, and would recycle it back to the lake after use and treatment. However, aggressive water conservation will still be required.

For all these reasons, the City of Waukesha developed a water conservation/protection plan. Our goal is to reduce the water usage by 20% by the year 2020. Regardless of our future water source, a water resource protection plan will help to protect the environment and ensure an adequate water supply for the future.

Please join us and learn what you can do to help meet our conservation goals and to protect our water supply and our natural resources.



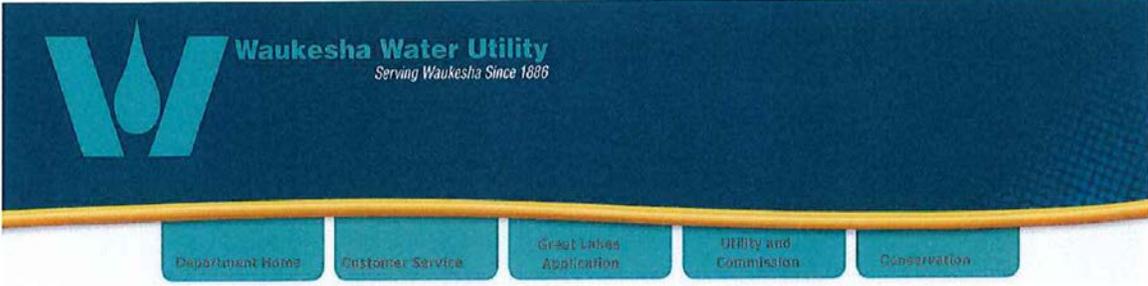
Last updated 06/04/2015

Why It's Important to Conserve on the Webpage

Under the “Ways to Conserve” heading, we talk about the toilet rebate, the incentives 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 shown on the next page.

The screenshot shows the Waukesha Water Utility website. At the top, there are social media icons for Facebook and Twitter, and navigation links for City of Waukesha, Mayor's Office, Common Council, Great Water Alliance, and Contact Us. A search bar is located in the top right corner. The main header features the Waukesha Water Utility logo, which consists of a stylized 'W' with a water drop, and the text "Waukesha Water Utility" and "Serving Waukesha Since 1886". Below the header is a navigation menu with five items: Department Home, Customer Service, New Water Supply Program, Utility and Commission, and Conservation. The main content area is titled "Ways to Conserve" and includes a list of links: Residential Toilet & Showerhead Rebate, Rain Barrel Rebate Form (PDF), Incentives for Businesses, Water-efficient Appliances, Outdoor Conservation Tips, and Find & Fix Leaks. A large image shows a child filling a blue water balloon from a blue rain barrel. To the right of the image is a map of Wisconsin with a red star indicating Waukesha. At the bottom left, it says "Last updated 06/28/2017" and at the bottom right is the Waukesha Water Utility logo.

Ways to Conserve on Webpage

search


### Water-efficient Appliances

The US Environmental Protection Agency provides information on [Water Efficient Appliances](#) that can save you money.

|                 | Gallons of Water Used per Year (Family of Four) |                              |
|-----------------|-------------------------------------------------|------------------------------|
|                 | Efficient Appliances                            | Without Efficient Appliances |
| Toilets         | 11,972                                          | 27,010                       |
| Clothes Washers | 14,600                                          | 21,900                       |
| Showers         | 12,848                                          | 16,936                       |
| Faucets         | 15,768                                          | 15,914                       |
| Dishwashers     | 1,022                                           | 1,460                        |
| Gallons Used    | 56,210                                          | 83,220                       |
| At 2015 Rates   | \$671.92                                        | \$908.53                     |

You can save **27,010 gallons and \$236.61 per year by replacing your old appliances.** If you qualify, we will give you up to \$100 to offset the cost of your new toilet.



Last updated 06/05/2015

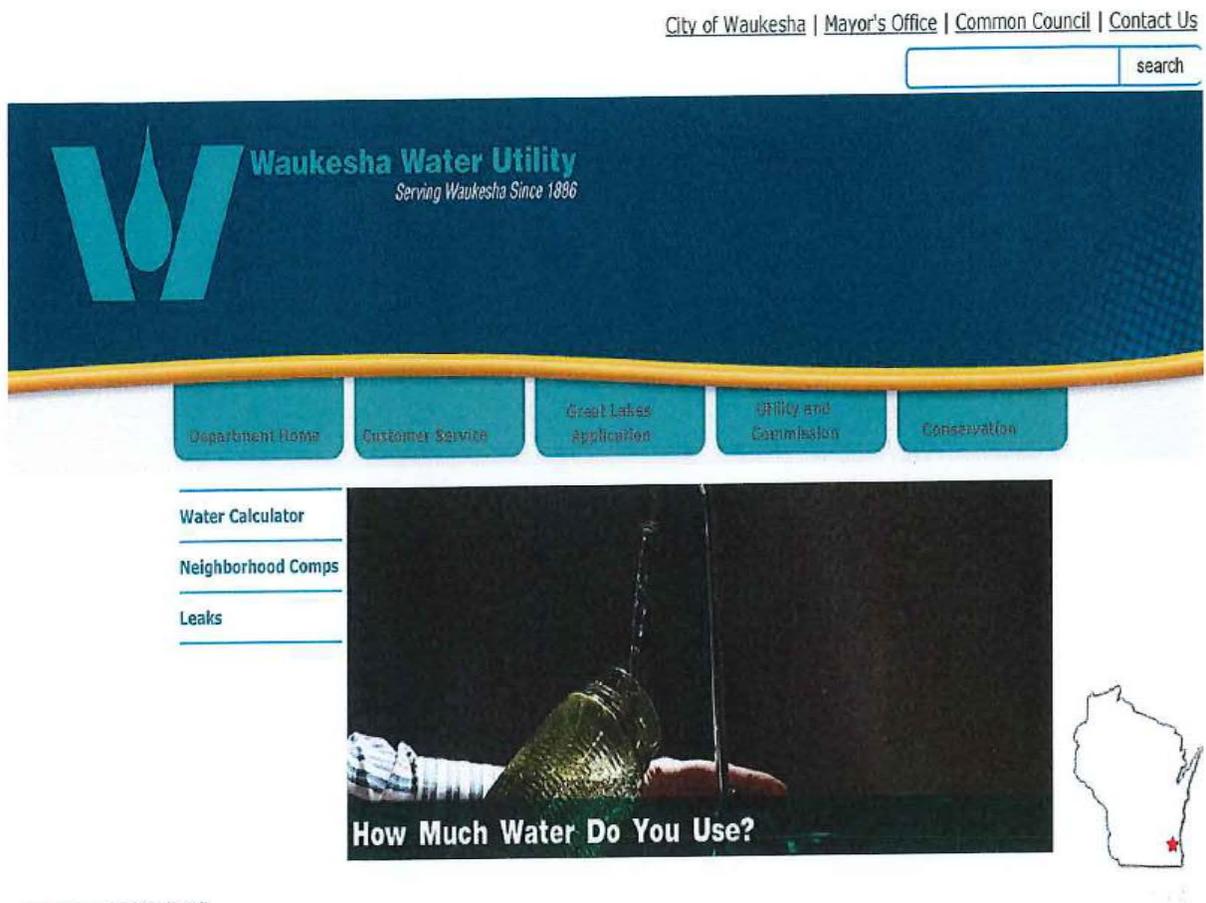
Water Efficient Appliances Webpage

## 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 section 12)
- How Your Water Consumption Compares to your Neighbors (please refer to section 13)



Last updated 06/04/2015

Information Regarding 'How Much Water Do You Use' on Webpage

The water calculator links to [H2OUSE 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.

## Water Use Calculator

How much water are you using at your home? Follow the easy steps below and fill in the information boxes on our **Water Use Calculator** to learn. Our Calculator will give you a water budget for the inside and outside of your home. A water budget tells you the right amount of water you should be using. Compare the water budget to your actual water bill and see how much water you could be saving. Then try the **Water Use Calculator** again with more water efficient landscaping added and see the difference in savings \$\$ this can make.

### Site Information

Name:

Site Name:  (e.g., My House)

Zip:

### Home/Interior Water Consumption Estimate

Number of Residents:

|                        | Number installed before 1994: | Number installed in 1994 or after: |
|------------------------|-------------------------------|------------------------------------|
| Number of Showerheads: | <input type="text"/>          | <input type="text"/>               |
| Number of Toilets:     | <input type="text"/>          | <input type="text"/>               |
| Number of Faucets:     | <input type="text"/>          | <input type="text"/>               |

Do you have a clothes washer?  Yes  No

*If yes, please answer below.*

Energy Star?  Yes  No

### Landscape Water Consumption Estimate

Grass/lawn Area:  sq.ft.

Shrubs/Ground Cover Area:  sq.ft.

Water-Conserving Plants Area:  sq.ft.

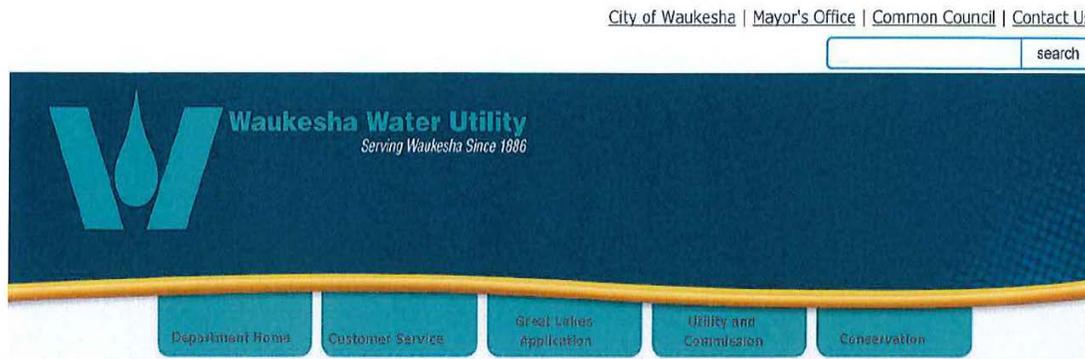
*Or if you don't know any of the above, enter the Total Landscape Area:*  sq.ft.

### Actual Water Usage

Select water measure for values you enter below:  CCFs or HCFs  Thousand Gallons (KGals)

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

- Repair Leaks (please refer to Section 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)



## Things To Do To Lower Your Bill

### Repair Leaks

Leaks not only waste a lot of water, but they also waste a lot of money - especially leaks that occur in toilets. Click on leaks to learn how to locate a leak, calculate the amount of water being wasted, read customer experiences regarding leaks, and find easy and economical repair suggestions.

### Sprinkling Practice / Outdoor Conservation

Learn about sprinkling and lawn care tips. Learn how much water your grass and vegetable gardens really need. Receive information about rain harvesting and rain gardens. In addition, find out what you can do to conserve water in regard to your pool/spa and vehicles.

### Install Aerators/Low-Flow Showerheads/Toilet Displacement Devices/ Low-Flush Toilets

For approximately \$35, the average homeowner can install low-flow aerators on faucets, install two low-flow showerheads, and put a toilet displacement bottle in the toilet tank. This will help you conserve water and lower your water bill.

### Purchase High Efficiency Appliances That Use Less Water

Whether you're in the process of remodeling, replacing old appliances, or buying appliances for the first time, remember high-efficiency appliances conserve water and, at the same time, save you money on both your water and energy bills.

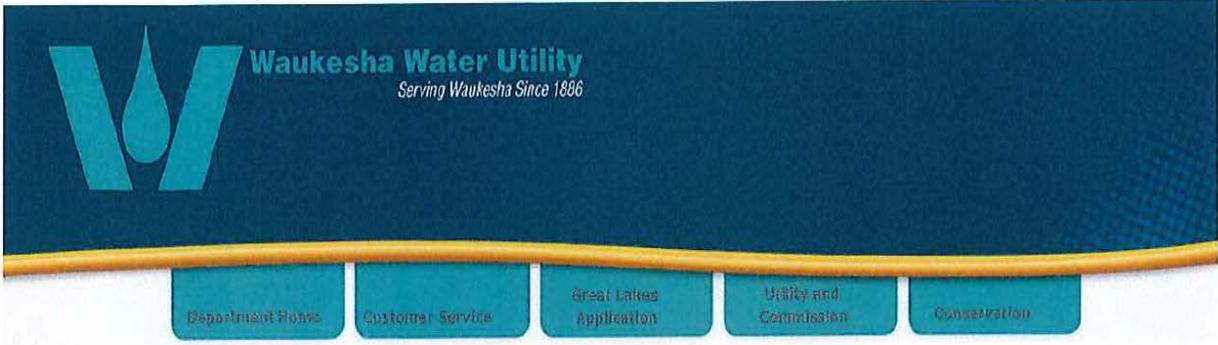
### Develop And Practice Daily Conservation Habits

Here are some more great water-saving ideas that we all can implement into our daily lives. These ideas will help conserve water and lower water bills. Remember, every little bit helps.



Last updated 06/04/2015

Information on Things to do to Lower Your Bill on Webpage

search

## Install Water Saving Devices

Conserving water in your home could save you over \$115 annually in water charges and help protect your water resources.

### Faucet Aerator

Household Sinks should be equipped with faucet aerators. Although it may not seem like much, a bathroom faucet can easily draw more than 2,500 gallons of water per year! Aerators conserve water by mixing air and water as the water leaves the spout. Aerators will not reduce the amount of water needed to fill a sink or pitcher, but will reduce the amount of water needed for rinsing. Aerators are easy to install and cost approximately \$2 each.

### Water Efficient Showerhead

Install water saving showerheads. An average 5-minute shower with a typical non-conserving showerhead sends approximately 40 gallons of fresh water down the drain and into the sewer. Water efficient shower heads provide a water savings of at least 44% compared to non-conserving shower heads. Water efficient showerheads cost approximately \$12 and up.

### Low Flow Toilet

Toilet flushing uses more water than any other household use! A typical non-conserving 5.5 gallon flush toilet (many of which are still in use) contaminates 13,000 gallons of fresh water per year to remove 165 gallons of body waste! An efficient low-flow toilet costs approximately \$100. It will save you 41.2 gallons of water per day. If you don't have a Water efficient toilet, displace water in the tank with two half-gallon plastic jugs filled with pebbles.

Source: Northwestern Indiana Regional Planning Commission and the Lake Michigan Federation (now the Alliance for the Great Lakes).



Last updated 06/05/2015

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



[Department Home](#)

[Customer Service](#)

[Great Lakes Application](#)

[Utility and Commission](#)

[Conservation](#)

## Daily Conservation Tips

### Kitchen Conservation Tips

- Install a low-flow aerator on your kitchen faucet.
- Place a pitcher of water in the fridge, or warm the water in the microwave or on the stove instead of running the water from the tap and waiting for the temperature to change. Otherwise, while waiting, capture the running water for watering the plants.
- Thaw frozen foods by putting them in the refrigerator overnight or use the microwave to defrost instead of using water to thaw them.
- Use only a little water in the bottom of the pan for cooking purposes. This is what most foods require and, at the same time, the foods will be more nutritious since the vitamins will stay more in the food instead of the water.
- Only run the dishwasher when you have a full load; and, if available, select the "light wash" option in order to use less water.
- Scrape dirty dishes instead of rinsing them off with water. Most dishwashers clean dishes very well and do not need to be rinsed.
- When washing dishes by hand, place the stoppers in the sinks or use two containers, one with soapy water and one with rinsing water, instead of turning the faucet on each time a rinse is needed.
- Begin a compost pile rather than running the water for a garbage disposal.
- Use a pan of water to clean vegetables instead of running the water from the faucet. Then, reuse this water for watering plants.

### Laundry Conservation Tips

- Use the wash machine only when there is a full load. Adjust the water level based on the size of the load.
- When purchasing a new wash machine, buy a high-efficiency appliance. This will not only conserve water, but will also save money on water and energy bills.

### Bathroom Conservation Tips

- Install a low-flow faucet aerator on your bathroom sink.
- Turn the water off while brushing your teeth, washing, or shaving.
- Install a low-flow showerhead.
- Take a shower instead of a bath. A fast shower, especially one with a low-flow showerhead, will use less water.
- Place a bucket in the shower to catch excess water for watering plants.
- While in the shower, turn the water on to get wet, turn it off while soaping up, and turn it back on to rinse off. Do the same when washing your hair.
- Only flush the toilet when necessary. Use the trash for tissues, insects, and waste instead of flushing them down the toilet.
- Check for toilet leaks twice a year. (See Leaks for more information.)
- If the handle of the toilet often stays in the flush position, after flushing, and allows the water to run, get it fixed.
- Put a plastic gallon jug filled with rocks, into the toilet tank. This will raise the water level in the tank so that less water will be used. Otherwise, you can purchase a toilet displacement device from a hardware store to do the same thing.
- When remodeling or purchasing a new home, install a low-flow flushing toilet that uses only 1.6 gallons of water per flush.

### General Conservation Tips

- Do not pour water down the drain when it could be reused for watering plants, gardens, etc.
- Check your water meter to verify that your house is leak free.
- Repair toilet leaks or dripping faucets right away. These waste a lot of water and can significantly increase.

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.

[City of Waukesha](#) | [Mayor's Office](#) | [Common Council](#) | [Contact Us](#)

search



**Waukesha Water Utility**  
Serving Waukesha Since 1886

[Department Home](#)

[Customer Service](#)

[Great Lakes Application](#)

[Quality and Commission](#)

[Conservation](#)

[What is a Water Audit?](#)

[AWE Audit \(Tool\)](#)

[AWWA Audit \(Excel Tool\)](#)

[AWWA Drip Calculator \(Tool\)](#)

[EPA WaterSense \(Tool\)](#)

[Your Toilet](#)

### Finding and Measuring Leaks

...but it's just a little leak ...

- A customer reported that every few hours his toilet seemed to flush itself. This was caused by the tank refilling after water leaked around the plunger ball. Our service people found the problem and the customer had it repaired quickly. Fortunately, the water bill for the leak was only \$89, but the water wasted was over 26,000 gallons.
- 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 leaked through the overflow and the bill was almost \$195.
- While paying a water and sewer bill of \$115 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 seating 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. This went on for about 45 days. The water wasted was over 20,000 gallons.
- A customer said "I know the toilet was leaking, but it can't cost \$231 for 3 months!" Approximately 92,000 gallons were wasted.

[How to Find & Fix 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.



## Fixing Leaks Around the Home

Being handy around the house doesn't have to be difficult. Common types of leaks found in the home are worn toilet flappers, dripping faucets, and other leaking valves. These types of leaks are often easily correctable, requiring only a few tools and hardware that can pay for themselves in water savings.

### Repare goteos y fugas alrededor del hogar (En Español)



- Checking for Leaks
- Toilets
- Faucets
- Showerheads
- Outdoors
- Leaks Still Flowing Overboard?



### Checking for Leaks

To check for leaks in your home, you first need to determine whether you're wasting water. Then identify the source of the leak.

- Take a look at your water usage during a colder month, such as January or February. If a family of four exceeds 12,000 gallons per month, there are serious leaks.
- Check your water meter before and after a two-hour period when no water is being used. If the meter changes at all, you probably have a leak.
- Identify toilet leaks by placing a drop of food coloring in the toilet tank. If any color shows up in the bowl after 15 minutes, you have a leak. (Be sure to flush immediately after the experiment to avoid staining the tank.)
- Examine faucet gaskets and pipe fittings for any water on the outside of the pipe to check for surface leaks.
- The Regional Water Providers Consortium has a [video on detecting household leaks](#) [\[EXIT Disclaimer\]](#) that you may find helpful.

### Toilets

A common reason why toilets will leak is an old or worn-out toilet flapper (e.g., valve seal). Flappers are inexpensive rubber parts that can build up minerals or decay over time. Replacing them can be a quick and easy fix for your water woes. To fix this leak, consult your local hardware store, home improvement retailer, or licensed plumber. Here are some online resources from WaterSense partners:

- Spartanburg Water has a useful [video tutorial on detecting leaky toilets](#) [\[EXIT Disclaimer\]](#).
- The Regional Water Providers Consortium has a [step-by-step video on how to fix a leaky toilet](#) [\[EXIT Disclaimer\]](#).

**Tip:** Bring the old flapper to the hardware store for comparison to make sure you buy a new flapper that fits your toilet model. You can also check the owner's manual, if you have it, or the manufacturer's website for the appropriate replacement part number for the flapper.

### Faucets

Old and worn faucet washers and gaskets frequently cause leaks in faucets. Many tutorials are available online for how to fix a wide variety of faucets. Here are a couple of examples:

[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).

 search


### Toilet Leaks

Toilet leaks are one of the most common and costly leaks. Hundreds of gallons a day can be wasted on toilet leaks. Although they tend to be invisible, you can often hear the sound of water running.

It's best to check for leaks twice each year. Check your toilet for parts which are out of adjustment or worn out. Leaks usually occur in the overflow pipe or the plunger ball.

After you have fixed the leak, use the leak indicator on your water meter to verify successful repair.

| <b>How Much Water is Wasted?</b> |                                 |
|----------------------------------|---------------------------------|
| A leak of _____ per minute,      | wastes _____ gallons per month. |
| 1 pint                           | 5,475                           |
| 1 quart                          | 10,950                          |
| ½ gallon                         | 21,900                          |
| 1 gallon                         | 43,800                          |
| 3 gallons                        | 131,400                         |

#### High Efficiency Toilet Rebate Program

If you have an old toilet, it's probably best to replace it.

#### Replace a Water Guzzling Toilet, Receive \$100!

[Rebate Qualifications and Application.](#)



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.

|                                 |                                    |                               |                                                         |                                     |            |
|---------------------------------|------------------------------------|-------------------------------|---------------------------------------------------------|-------------------------------------|------------|
| <b>MEMBERSHIP</b>               | <b>CONFERENCES &amp; EDUCATION</b> | <b>RESOURCES &amp; TOOLS</b>  | <b>PUBLICATIONS</b>                                     | <b>LEGISLATION &amp; REGULATION</b> | Search aww |
| <a href="#">Water Knowledge</a> | <a href="#">Public Affairs</a>     | <a href="#">Career Center</a> | <a href="#">Water and Wastewater Utility Management</a> | <a href="#">Resource Dev</a>        |            |

- PUBLIC INFORMATION**
  - [Drip Calculator](#)
- PRESS ROOM**
- COMMUNICATIONS TOOLS**
- PUBLIC AFFAIRS EVENTS**

[Home](#) > [Resources & Tools](#) > [Public Affairs](#) > [Public Information](#) > [Drip Calculator](#)

## Drip Calculator

Use AWWA's online tool to estimate water waste and learn how much water you could be saving.

### DRIPPING FAUCETS



For smaller/slower leaks - count the number of drips in one minute from the leaky fixture. Note: 5 drips per second amounts to a steady stream.

Drips Per Minute:

Unit of Measurement:

### FAST RUNNING FAUCETS



For larger/more rapid leaks - hold an 8 ounce cup under the dripping fixture and time, in seconds, how long it takes to fill the cup.

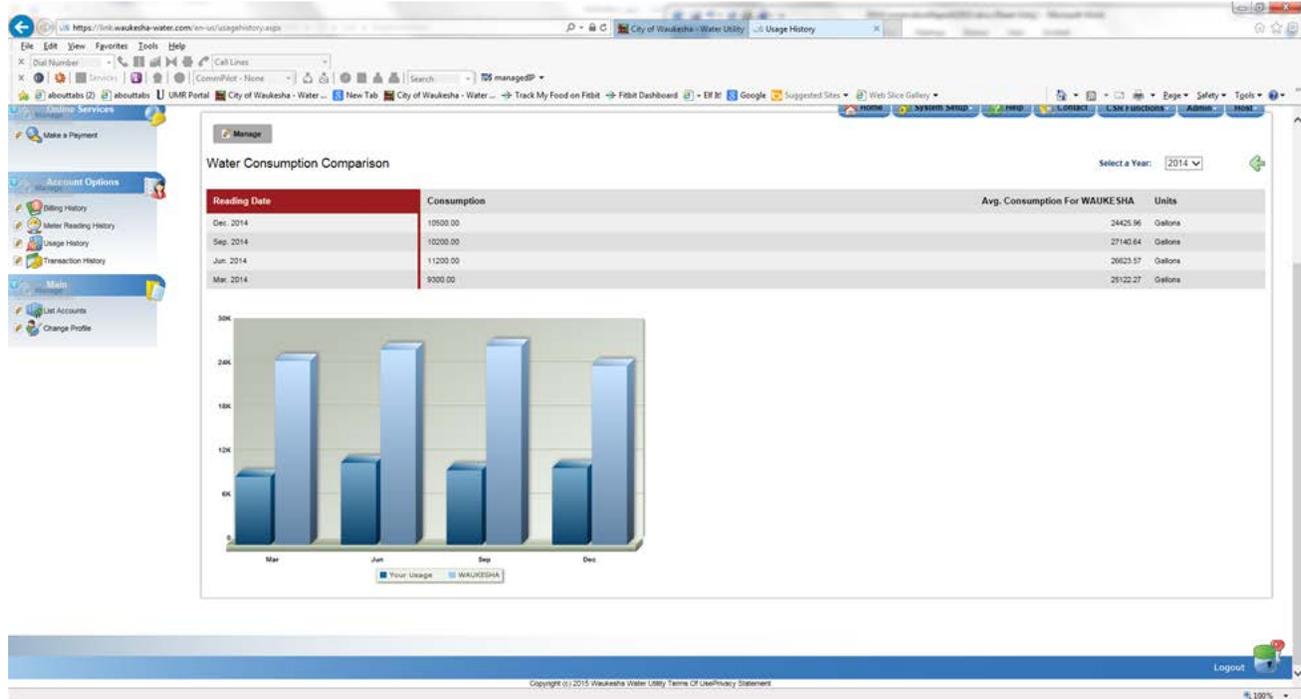
Time in seconds:

Unit of Measurement:

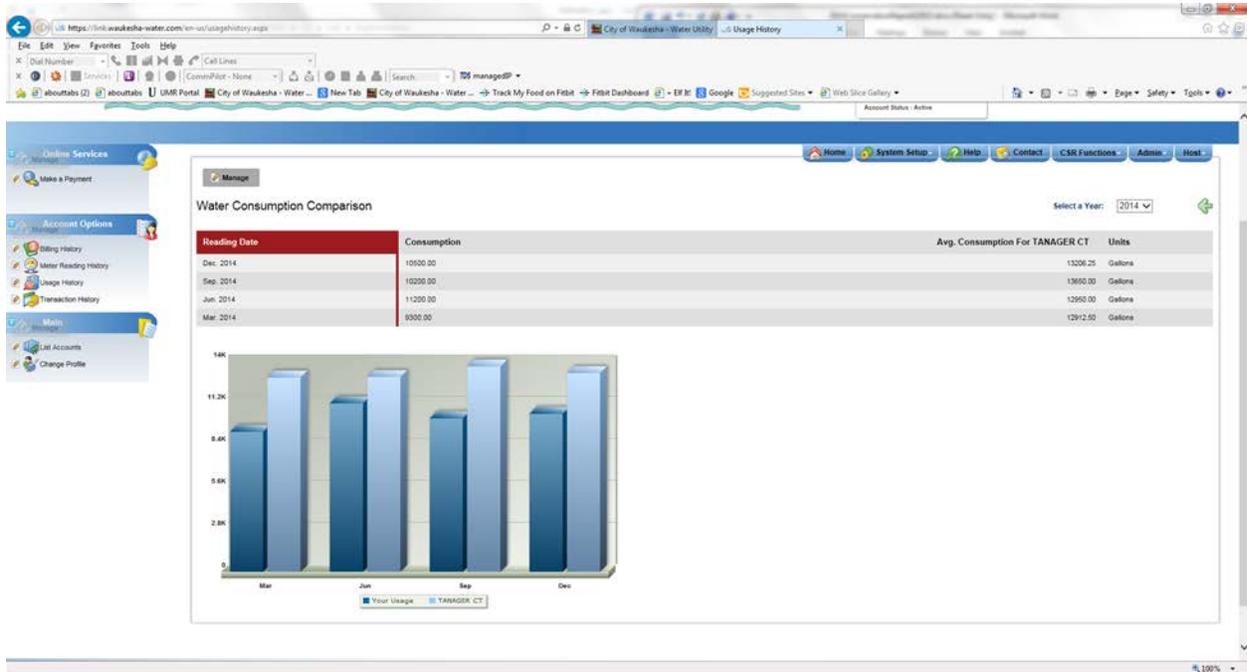
[Link to AWWA's Drip Calculator](#)



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.

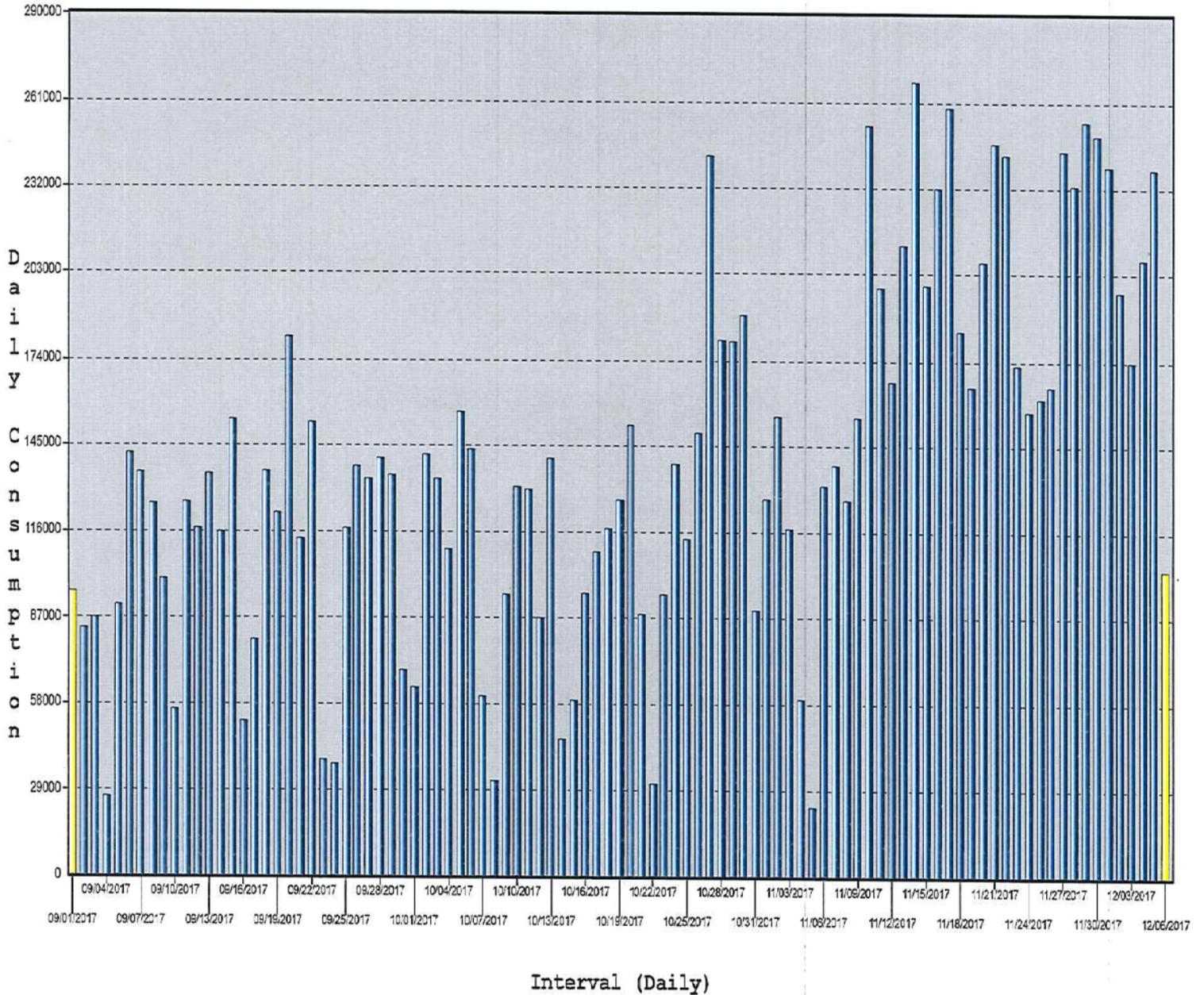
In 2019, the Utility conducted 75 residential water audits and 7 data logging reports. The majority of the residential audits found that the high consumptions were related to toilet leaks.

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

Waukesha Water Utility  
E-Coder R900i Data Logging Report

MIL#: 1545664690 Acct: Unknown Mtr #: 1545664690 Addr: ~~500 S BIRCH ST~~ for 09/01/2017 through 12/06/2017, WATER, 1 1/2" - 4" T-10 and HPT, GALLONS

⬇ Minor Reverse Flow Flag
✳ Major Reverse Flow Flag
✚ Intermittent Leak Flag
♦ Continuous Leak Flag



Neptune Technology Group 2017

\*All time intervals are represented in standard time.

4.7.141111

Data Logging Report for a Large Customer Account



## 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 – 48.75 hours
- [ X ] School Programs – 56 hours
- [ 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: Sink Tents
- [ 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. Education Programs**

In addition to the education that has already been discussed throughout this report, the Utility also implemented the following educational conservation program announcements in 2019:

1. Great Water Alliance Website Evolution (Uploaded in 2019)
2. Great Water Alliance Electronic Newsletters
3. Great Water Alliance Informational Video Series (New in 2019)
4. City of Waukesha's Electronic Newsletter
5. Department of Public Works Newsletter Inserts – Conservation Message (New in 2019)
6. Advertisement for the Toilet & Shower Head Rebate Program
7. Irrigation Ordinance Bill Insert
8. EPA WaterSense's National Fix a Leak Week
9. National Drinking Water Week
10. Tips on How to Prevent Frozen Pipes
11. Wisconsin Water Conservation Coalition Donation for Conservation Education



## 1. Great Water Alliance Website Evolution

In 2018, the Great Water Alliance began the Website Evolution with the purpose of updating communication efforts (for the Great Lakes Water Supply program), organizing the information, making it more user-friendly, and adding more information for water conservation.

In 2019, the following information was uploaded onto the website: an update to the financial figures, using the current rates, for dollars and gallons **saved** (when changing out old appliances for water-efficient appliances); dollars and gallons **wasted** (when it comes to leaks), outdoor water conservation tips, and links to the Utility's website for information pertaining to the sprinkling ordinance, rebates, information on how to find and fix leaks, and information on rain barrels.

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

WATER CONSERVATION  **YOU CAN SAVE**  
**27,010 gallons AND \$500**  
PER YEAR BY **replacing** YOUR OLD APPLIANCES



|                                                                                            |                                                                                                 |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| TOILET    | WASHER       |
| SHOWER   | DISHWASHER  |
| FAUCET  | TOTAL      |

## MORE ABOUT **conservation**

Head to the WWU page for more information on Waukesha's conservation efforts, including rebates and our daytime sprinkling ban.

[WAUKESHA WATER UTILITY >>](#)

New 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.

# 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 >>](#)

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

## OUTDOOR conservation tips



Use a spray nozzle on your hose. If this is an adjustable type, the water can be turned down to a fine spray. When finished using the hose, turn the water off at the faucet instead of the nozzle — this will help control leaks. Sweep off your driveway and sidewalk with a broom or use a blower — do NOT use the hose.



Water plants only when needed. Soaker hoses use less water than overhead sprinklers. Turn the soaker hose upside down (so that the holes are facing down). This will help to avoid evaporation. Remove weeds — they steal water from other plants. Use organic mulches (such as woodchips, shredded bark, grass clippings, straw, hay, leaves, or compost) — to retain moisture.



Cover the pool or spa to prevent evaporation and to keep the water cleaner. To avoid water going over the sides, do not overfill. Install a water-saving pool filter — traditional filters use 180-250 gallons of water. Do not drain pools/spas unless repair work is needed.



Rain gardens are a more natural landscape that uses wildflowers and other native plants. The native plants are low maintenance, use a lot less water, and do not require fertilizers. Due to their deep root system, native plants help the environment by increasing the soil's ability to store water, reducing runoff (flooding), and providing a habitat for birds and butterflies. The DNR provides a lot of information about Rain Gardens.



Use a bucket or a rain barrel to catch and store fresh rainwater from your rooftop. Then use this water for washing your car or for watering your lawn, garden, trees, and plants. Rainwater is better for your plants because it is not chlorinated. If you put a screen over your bucket, this will keep the insects out and keep mosquitoes from laying their eggs in the rainwater.

Learn more about rain barrels and the Waukesha Water Utility rain barrel rebate program [here](#).

New Conservation Information on GWA's website – Outdoor Conservation Tips



## **2. Great Water Alliance Electronic Newsletters**

In 2017, the Great Water Alliance (GWA) was launched – a program/brand name given to an initiative by the Utility to educate and unite the citizens and communities who will be affected by Waukesha's Great Lakes water project. In order to open up the lines of communication and keep people fully informed, a dedicated website/clearinghouse was created.

In addition to the website, an electronic newsletter was also created. The newsletters are emailed out every other month; and anyone can sign up to receive a newsletter through GWA's website. By the end of 2019, there were approximately 600 people signed up to receive the newsletters.

The topic of water conservation has been a part of GWA from the very beginning. Information about water conservation has been included on the website, at open houses, talked about in presentations, and in the e-newsletters, etc.

In 2019, the e-newsletters, which are archived on the GWA's website, contained the following water conservation articles: *Prevent Freezing Pipes*, *Finding a Leak is the First Step*, & *Do Your Part to Conserve Water – 5 Easy Steps to Reduce Water Use (articles 1 and 2)*.

Copies of the 2019 conservation articles are shown on the 3 following pages.



### Prevent Freezing Pipes

1 04 202-521-5272

Waukesha, WI, January 2019 - Cold weather and wind chills are here. This 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.

February 2019 GWA's Conservation Newsletter Article – Prevent Freezing Pipes  
(Broken Pipes Can Waste A Lot of Water)

## Finding a Leak is the First Step

Water is our precious resource and we can all agree on the importance of conserving it. Thankfully, each of us can do our part to help such as, making sure the water fixtures in our homes are running efficiently. Water leaks are common, but we might not notice them, so we need to look for them.

According to the EPA, "It is estimated that ten percent of homes have leaks that waste 90 gallons or more PER DAY." Worn toilet flappers, dripping faucets, and damaged valves are common ways water can escape. The good news is many of these leaks can be fixed easily and inexpensively.

You can do your part by routinely looking for signs of water leaks and then getting them fixed. One way is to monitor your water bill and be aware how much water you are using. If you see a spike in use, that may indicate a water leak. Also, once or twice a year, it is a good idea to check all water fixtures, like faucets and toilets, to see if there are any problems. And, don't forget that outside water spigot or irrigation system.

One last suggestion is to check the leak indicator on your water meter. First, make sure you are not running any water or using any appliances like a dishwasher or washing machine. Then, head to your water meter in your basement. You might need a flashlight to help you see a small red triangle or diamond shape on the face of the meter. It should be still. If it is moving, that means water is running somewhere. For more ideas, check out this issue's infographic.

Step 1: Remove the tank lid.

Step 2: Place 10 drops of food coloring in the tank.

Step 3: Replace lid and do not flush.

Step 4: Check in 20 minutes. If the food coloring shows up in the bowl, you have a leak.

**REDUCE YOUR WATER USAGE...**  
**fix a leak**

Minor water leaks account for more than **1 trillion gallons** of wasted water every year.



**remember**  
Check for Leaks Throughout your Home  
Toilets - Faucets - Showerhead - Garden Hose



### One way to know if you have a leak

If you have a monthly water bill, routinely review. If you see a spike in use, that may indicate a water leak.



## Toilets are a Common Source of Leaks

Nearly 30% of an average home's indoor water consumption

| STEP 1               | STEP 2                                                                               | STEP 3                        | STEP 4                                                                                  |
|----------------------|--------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------|
| Remove the tank lid. | Place 10 drops food coloring* inside tank.<br><small>*Red or green work best</small> | Replace lid and do not flush. | Check in 20 minutes. If the food coloring shows up in the toilet bowl, you have a leak. |



Find more ways to conserve water at [greatwateralliance.com](http://greatwateralliance.com)



By GWA | 04/01/2019 | Newsletter Highlights

# DO YOUR PART TO CONSERVE WATER

The City of Waukesha understands water is a limited resource. On the [Waukesha Water Utility's website](#) it points out, "of all the water on Earth, we have only 1% to use. 97% of the planet's water is located in the ocean and due to its salt content is not easily used for drinking. Another 2% is frozen at the poles in the form of icebergs and glaciers."

The city has been and is a leader in water conservation in Wisconsin. Its multi-tiered plan includes public education, financial incentives (rebates), water use/loss audits, and reduced outdoor irrigation.

Here are five easy steps you can take to reduce water use:

Here are five easy steps you can take to reduce water use:



## Think Twice Before Watering

Knowing your local water ordinances is important. Waukesha bans most water sprinkling during the day and limits allowable days of the week at other times. Keep in mind, it is not necessary to water established lawns. Your lawn doesn't die; it just goes dormant until the rain returns. [Click here](#) for tips on watering and information about the City of Waukesha's sprinkling ordinance.



## Check for Leaks

Routinely looking for signs of water leaks in your home and then getting them fixed, is an important way to conserve. [This article](#) provides you more information on how to spot a leak.



## Replace Fixtures

Replacing toilets and showerheads with more efficient models is one of the best ways to reduce your water use. Waukesha Water Utility customers may qualify for a rebate, but make sure to read [this information](#) before you make a purchase.



## Collect

Collecting rainwater in a barrel allows you to keep your garden healthy and City of Waukesha residents may also qualify for a rebate. [Click here for more information.](#)



## Turn Off Your Tap

When brushing your teeth or shaving, don't keep your faucet on. Turning off the faucet between uses reduces water consumption.

For more information on water conservation, go to [Waukesha Water Utility's water conservation page.](#)

# DO YOUR PART TO CONSERVE WATER



## Buy WaterSense

Buying products and services with a WaterSense label is another easy way to conserve. WaterSense is a voluntary partnership program sponsored by the U.S. Environmental Protection Agency (EPA) which certifies products and services that use at least 20% less water and save energy.



## Buy High-Efficiency (HE)

When purchasing new appliances, look for the Energy Star or HE, which is the "government-backed symbol for energy efficiency, providing simple, credible, and unbiased information." An Energy Star washer can reduce water use by 40%. Other efficient appliances are also available.



## Double Dip

A lot of water is wasted by handwashing dishes in your sink with a constant stream of water. If you have a double sink, fill one side with hot soapy water and the other with clean, hot water. This can reduce wasted water by half.



## Reuse It

Think of ways to reuse water, like putting your houseplant watering can under the tap while you are waiting for water to warm.



## Shorten

Reducing your time in the shower can save hundreds of gallons of water over a year.

**For more information on water conservation, go to Waukesha Water Utility's water conservation page.**



### 3. Great Water Alliance Informational Video Series (New in 2019)

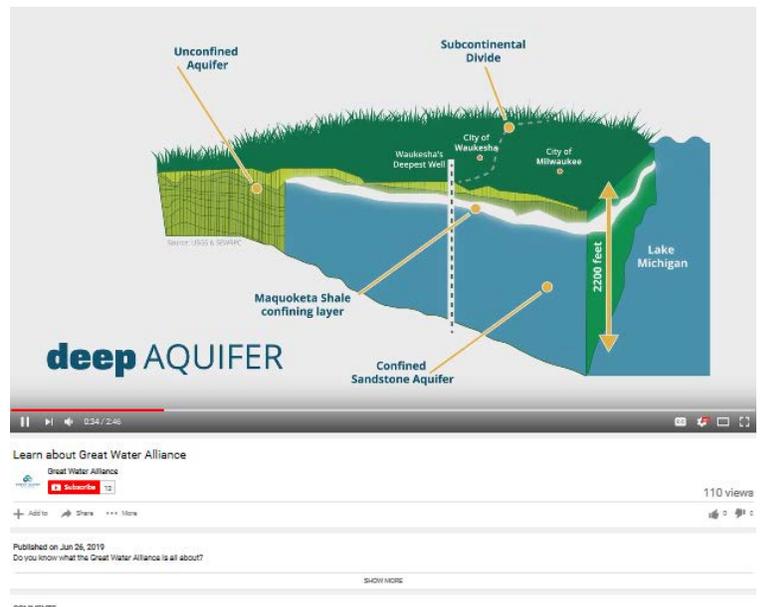
GWA is making a series of Informational videos to keep people informed. The information videos are located on GWA's website. The first video in 2019 explains why Waukesha needs a new water source - due to the Maquoketa Shale (confining layer) Waukesha's recharge is limited, the water supply is unsustainable, and has contaminants. Information regarding the first video is shown below.

#### Introducing a NEW Informational Video Series

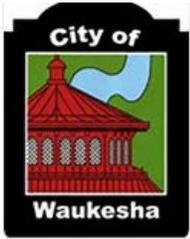
Online videos continue to grow in popularity. They are easy to comprehend and can be used to present crucial information in a simple and enjoyable way. This is why the Great Water Alliance (GWA) is pleased to introduce a new series of informational videos in order to keep individuals up-to-date regarding the program.

The new GWA videos will provide concise information about the program, including history, innovative technology, and how the program will impact people in Waukesha and along the eventual pipeline route. The first video provides an overview of the GWA program and explains why Waukesha needs a new water source. Future videos will show how we are going to fix the problem and what to expect during construction in 2020.

All the videos will be simple, direct, and easy to understand, while providing new, necessary information. You'll see the videos posted on social media and the GWA website. You can view the first video [here](#).



June 2019 GWA's NEW Informational Video Series – the First Video Explains Why Waukesha Needs a New Water Supply



#### **4. City of Waukesha's Electronic Newsletter**

The City's Electronic Newsletter goes out every week to anyone who signs up to receive it. In 2019, the Utility had the following conservation information listed in the E-Newsletter:

- Waukesha's Home Depot's & the Utility's workshop on *Getting Your Lawn Ready for Spring & Outdoor Water Conservation Tips*
- *Fix a Leak Week* – to encourage people to check for leaks and remind customers about the rebate incentives.
- *National Drinking Water Week* – where we advertised the toilet, showerhead, and rain barrel rebate programs and provided a link to the Utility's conservation webpage.

A copy of these articles are shown on the following 3 pages.



## Get Your Lawn Ready



This Saturday, March 9 from 10am-11am the [Waukesha Water Utility](#) is partnering with Home Depot (2320 W Bluemound Rd) for their Saturday workshop.

Learn about ways to get your lawn ready for spring including pest control, watering, feeding, and outdoor water conservation tips.

[More Information](#)

Home Depot and Waukesha Water Utility Workshop Advertised in City of Waukesha's Electronic Newsletter



## Fix a Leak



This week is national *Fix a Leak Week*. The Water Utility encourages everyone to take the time to check for leaks.

Common types of leaks found in the home are worn toilet flappers, dripping faucets, and other leaking valves. A few minutes of your time can pay for itself in water savings. [Read more on how to find and fix a leak.](#)

If you need to replace your toilet or shower head, you could qualify for a \$100 toilet rebate or \$25 shower head rebate. [Read more.](#)

[More Information](#)

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

# WHAT'S UP IN WAUKESHA

*A newsletter from the City of Waukesha*

## National Drinking Water Week

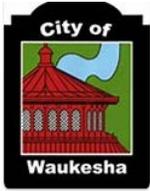


This week is National Drinking Water Week. To encourage you to conserve, the Water Utility offers the following:

- [\\$20 Rain Barrel rebate program](#)
- [\\$100 WaterSense toilet rebate](#)
- [\\$25 WaterSense shower head rebate](#)

**Conservation Information**

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



## **5. Department of Public Works Newsletter Inserts – Conservation Message (New in 2019)**

Waukesha's Department of Public Works has a newsletter that is mailed out to the city of Waukesha's residents three times per year.

In 2018, the Utility asked the Dept. of Public Works if we could include an insert in their newsletter – we saw this as another opportunity to provide information to the public.

In 2019, we decided that in every insert, we would include information pertaining to water conservation. GWA and the Utility worked together on the inserts. The conservation message in the first insert included information on finding leaks. The second and third inserts reminded readers to do their part to conserve water and provided 5 tips, in each insert, on how to conserve water.

A copy of the 3 inserts are shown on the next 3 pages.

## Water Conservation Finding a Leak is the First Step

Water is our precious resource and we can all agree on the importance of conserving it. Thankfully, each of us can do our part to help such as, making sure the water fixtures in our homes are running efficiently. Water leaks are common, but we might not notice them, so we need to look for them.

According to the EPA, "It is estimated that ten percent of homes have leaks that waste **90 gallons or more PER DAY.**" Worn toilet flappers, dripping faucets, and damaged valves are common ways water can escape. The good news is many of these leaks can be fixed easily and inexpensively.

You can do your part by routinely looking for signs of water leaks and then getting them fixed. One way is to monitor your water bill and be aware how much water you are using. If you see a spike in use, that may indicate a water leak. Also, once or twice a year, it is a good idea to check all water fixtures, like faucets and toilets, to see if there are any problems. And, don't forget that outside water spigot or irrigation system.

One last suggestion is to check the leak indicator on your water meter. First, make sure you are not running any water or using any appliances like a dishwasher or washing machine. Then, head to your water meter in your basement. You might need a flashlight to help you see a small red triangle or diamond shape on the face of the meter. It should be still. If it is moving, that means water is running somewhere. For more water conservation information go to [greatwateralliance.com/better-water/conservation](http://greatwateralliance.com/better-water/conservation).



## An update from the Great Water Alliance

Our community depends on safe, reliable drinking water. In June of 2016, the Great Lakes Compact Council unanimously approved Waukesha's application to obtain drinking water from Lake Michigan and return treated water to Lake Michigan via the Root River. Now, as the **Great Water Alliance (GWA)** works to create a safe and sustainable supply of drinking water for Waukesha, we will work to keep the citizens and communities who will be affected fully informed. Continue reading to learn about where we are in the process.



### STAY INFORMED

Make sure you stay informed on the Great Water Alliance, which will be providing much needed water infrastructure to the City of Waukesha.

VISIT OUR WEBSITE  
[greatwateralliance.com](http://greatwateralliance.com)

CALL OUR HOTLINE  
262.409.4444

FOLLOW US  
f @GWASocial    @GWA\_Social



April 2019 DPW Insert – Finding Leaks is the First Step



Go to [www.greatwateralliance.com/learn-about-GWA](http://www.greatwateralliance.com/learn-about-GWA) to view the new GWA video

### Introducing a NEW Informational Video Series

Online videos continue to grow in popularity. They are easy to comprehend and can be used to present crucial information in a simple and enjoyable way. This is why the **Great Water Alliance (GWA)** is pleased to introduce a new series of informational videos in order to keep individuals up-to-date regarding the program.

The new GWA videos will provide concise information about the program, including history, innovative technology, and how the program will impact people in Waukesha and along the eventual pipeline route. The first video provides an overview of the GWA program and explains why Waukesha needs a new water source. Future videos will

show how we are going to fix the problem and what to expect during construction in 2020.

All the videos will be simple, direct, and easy to understand, while providing new, necessary information. You'll see the videos posted on social media and the GWA website. You can view the first video at [www.greatwateralliance.com/learn-about-GWA](http://www.greatwateralliance.com/learn-about-GWA).

The City of Waukesha has been and is a leader in water conservation in Wisconsin. Its multi-tiered plan includes public education, financial incentives (rebates), water use/loss audits, and reduced outdoor irrigation.

**Here are five easy steps you can take to reduce water use:**

## DO YOUR PART TO CONSERVE WATER



### Think Twice Before Watering

Knowing your local water ordinances is important. Waukesha bans most water sprinkling during the day and limits allowable days of the week at other times. Keep in mind, it is not necessary to water established lawns. Your lawn doesn't die; it just goes dormant until the rain returns.



### Check for Leaks

Routinely looking for signs of water leaks in your home and then getting them fixed, is an important way to conserve.



### Replace Old Fixtures

Replacing toilets and showerheads with more efficient models is one of the best ways to reduce your water use. Waukesha Water Utility customers may qualify for a rebate, but make sure to read review the qualification at Waukesha Water Utilities' website before you make a purchase.



### Collect

Collecting rainwater in a barrel allows you to keep your garden healthy and City of Waukesha residents may also qualify for a rebate.



### Turn Off Your Tap

When brushing your teeth or shaving, don't keep your faucet on. Turning off the faucet between uses reduces water consumption.

For more information on water conservation, go to Waukesha Water Utility's water conservation page at [www.waukesha-water.com/conservation](http://www.waukesha-water.com/conservation).



Attendees at the Prequalification Meeting received details about the Great Water Alliance program.

### Waukesha Water Utility Begins Search for General Contractors and First-Tier Subcontractors

With construction expected to begin in spring 2020, GWA took an exciting step toward procuring general contractors and first-tier subcontractors to construct the pumping and storage facilities, along with the approximately 36 miles of large-diameter pipelines. A Prequalification Meeting was held at the end of June to provide a Program overview and information on construction needs. The meeting was well attended, with 50 representatives of interested contractors from across Wisconsin and the Midwest.

Contractors interested in bidding on the Program are required to go through a prequalification process to verify they meet minimum specifications. This included

submitting an application outlining their experience, recent project history for similar projects, financial history, safety record, bonding and insurance capabilities, and planning and scheduling methodology.

Prequalification applicants will be notified later this year if they qualify and their names will be posted on [greatwateralliance.com/contractors](http://greatwateralliance.com/contractors). The next exciting step will be the opportunity to bid on contract packages.

The City of Waukesha has been and is a leader in water conservation in Wisconsin. Its multi-tiered plan includes public education, financial incentives (rebates), water use/loss audits, and reduced outdoor irrigation.

On the next page, review five easy steps you can take to reduce water use:

## DO YOUR PART TO CONSERVE WATER



### Buy WaterSense

Buying products and services with a WaterSense label is another easy way to conserve. WaterSense is a voluntary partnership program sponsored by the U.S. Environmental Protection Agency (EPA) which certifies products and services that use at least 20% less water and save energy.



### Buy High-Efficiency (HE)

When purchasing new appliances, look for the Energy Star or "HE", which is the "government-backed symbol for energy efficiency, providing simple, credible, and unbiased information." An Energy Star washer can reduce water use by 40%. Other efficient appliances are also available.



### Double Dip

A lot of water is wasted by handwashing dishes in your sink with a constant stream of water. If you have a double sink, fill one side with hot soapy water and the other with clean, hot water. This can reduce wasted water by half.



### Reuse It

Think of ways to reuse water, like putting your houseplant watering can under the tap while you are waiting for water to warm.



### Shorten

Reducing your time in the shower can save hundreds of gallons of water over a year.

For more information on water conservation, go to Waukesha Water Utility's water conservation page at [www.waukesha-water.com/conservation](http://www.waukesha-water.com/conservation).

## 6. 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, and rebate applications on display with Home Depot, local plumbers, and in the Utility's customer service area. 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 all speaking and 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](http://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...**

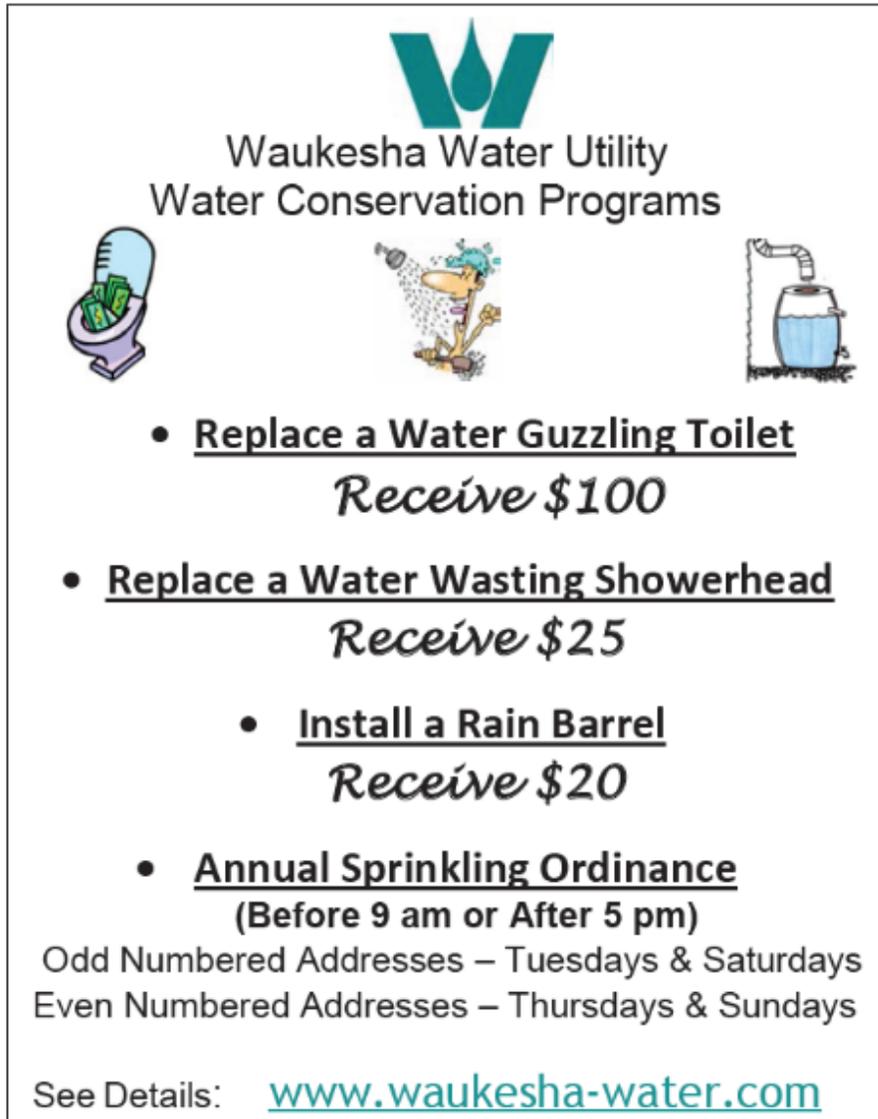
- If you replace your old water guzzling toilet (3.5 gallon or more) with a 1.28 gpf (gallons per flush) WaterSense toilet, you may be eligible to receive a rebate from the Water Utility.
- You can purchase rain barrels through the Waukesha School District's Environmental Education Department (262-970-4333) 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](http://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.

In 2019, the Utility added Waukesha's annual Sprinkling Ordinance information to the bottom of the ad, as shown below, and advertised in two Activity Guides.

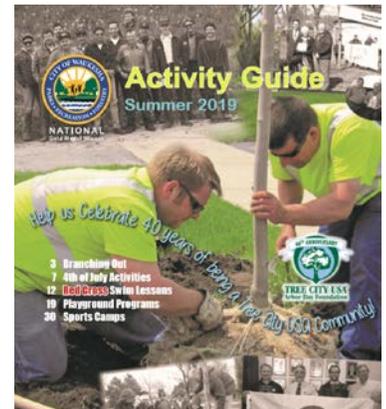


The advertisement features the Waukesha Water Utility logo at the top, a stylized 'W' with a water drop. Below the logo is the title 'Waukesha Water Utility Water Conservation Programs'. Three illustrations are shown: a toilet with money falling out, a cartoon character showering, and a rain barrel. The main content is a list of rebate programs with their respective amounts. At the bottom, it provides the website for more details.

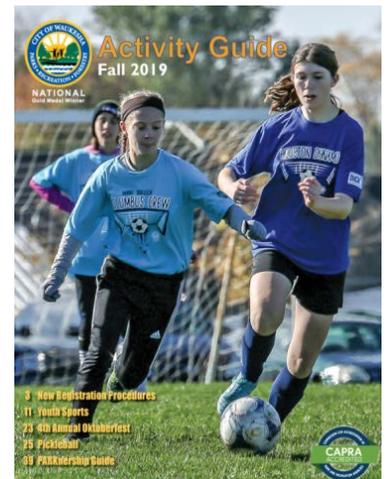
**Waukesha Water Utility  
Water Conservation Programs**

- **Replace a Water Guzzling Toilet**  
*Receive \$100*
- **Replace a Water Wasting Showerhead**  
*Receive \$25*
  - **Install a Rain Barrel**  
*Receive \$20*
- **Annual Sprinkling Ordinance**  
(Before 9 am or After 5 pm)  
Odd Numbered Addresses – Tuesdays & Saturdays  
Even Numbered Addresses – Thursdays & Sundays

See Details: [www.waukesha-water.com](http://www.waukesha-water.com)



2019 Summer Activity Guide



2019 Fall Activity Guide

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

## 7. 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.



Established lawns do not need to be watered. But if you're thinking about updating or installing a new sprinkling system, check out Waukesha's Irrigation System Ordinance.

Homeowners and businesses can save between 30-50% on their summer water bills by following the Ordinance and installing a WaterSense irrigation controller.

For more detailed information, please visit our website at:

[www.waukesha-water.com/ord\\_codes.html](http://www.waukesha-water.com/ord_codes.html).

Irrigation System Ordinance Postcard

# WaterSense®



## 8. 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.

"March 18th – March 24<sup>th</sup> is 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](http://www.waukesha-water/wtc.html)."

- An Informational Sheet & Leak Detection Dye Tablets were available in the Utility's customer service reception area.
- A Press Release.
- Information on our website's home page
- A message was sent out on our Twitter account.
- Classroom Materials on our website that teach students to check for toilet leaks.

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



## Fix a Leak Week



### **Save Money and Help Conserve Water During Fix-a-Leak Week**

According to the EPA, “did you know that 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?”

As an EPA WaterSense partner, we encourage you to check your plumbing fixtures and irrigation systems for leaks and to repair the leaks you find during this year’s national [Fix a Leak Week](#), March 18-24, 2019.

### **Identify Toilet Leaks**

**Toilet leaks are one of the most common leaks that tend to be invisible and waste hundreds of gallons of water a day. Identify toilet leaks by placing a few drops of food coloring in the toilet. Wait for at least 15 minutes before flushing. If any color appears in the toilet bowl, you have a leak. (Be sure to flush immediately, after the experiment, to avoid staining the tank.)** If you don’t have food coloring, you can pick up free leak detection dye tablets from Waukesha Water Utility, located at 115 Delafield Street in Waukesha.

### **Find & Fix Leaks**

In most instances, leaks are easy and inexpensive to fix and you benefit by saving money! For your convenience, please visit our website at [www.waukesha-water.com/wtc.html](http://www.waukesha-water.com/wtc.html) for videos and tips on how to find and fix leaks.

### **Replace the Fixture if Necessary**

Look for the WaterSense label. WaterSense products are independently tested and certified to use 20 percent less water and perform as well as or better than standard models. **In addition, if you purchase a 1.28 gallon per flush WaterSense toilet, you might be eligible for a rebate.**

Free Leak Detection Tablets & *Fix a Leak Week* Informational Sheet in Customer Service Reception Area



# 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](mailto:contactus@waukesha-water.com)

For Immediate Release

March 18, 2019

## **National Fix a Leak Week March 18<sup>th</sup> – 24<sup>th</sup>**

**Waukesha, WI – March 18, 2019,** 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."

The focus is on toilets because they are the main source of water use in the home, accounting for nearly 30% of an average home's indoor water consumption. When toilets leak, hundreds of gallons of water a day can be wasted without the homeowner's knowledge. Toilet leaks are common, so the water utility recommends checking for leaks at least twice each year.

Whether you replace or repair your toilet depends on its age. Replacing toilets that were installed 1993 or earlier with a more water efficient model is one of the best ways to help reduce water usage. Purchasing a 1.28 gallon per flush, WaterSense-labeled toilet can save homeowners approximately \$115 per year on water and wastewater bills. If you live in the city of Waukesha, you may also qualify for the \$100 toilet rebate and a \$25 shower head rebate.

For more information on how to find and fix leaks, or for toilet and shower head rebates, please visit the Waukesha Water Utility's website at [www.waukesha-water.com/wtc.html](http://www.waukesha-water.com/wtc.html).



Department Home

Customer Service ▾

New Water Supply Program ▾

Utility and Commission ▾

Conservation ▾



### The great news about Great Lakes water.

In June of 2016, the Great Lakes Compact unanimously approved Waukesha's application to borrow water through a pipeline from Lake Michigan, and then treat it and return it all to the lake via the Root River.

We pledge to keep everyone who may be affected fully informed, every step of the way. To that end, we developed [greatwateralliance.com](http://greatwateralliance.com), a website that will be the information hub for all things related to the project.

#### **NEWS ROOM**

[National Fix a Leak Week](#)

[Low cost federal loan could reduce projected rate increases](#)

[City wants to retrofit your water softener](#)

**Pay Bill Online**

[Click Here](#)

Fix a Leak Week Information on the Utility's Website



## 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<br>(Diameter) | WATER WASTED<br>EACH QUARTER<br>(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 →)

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

- How many toilets do you have? \_\_\_\_\_ Did you test all your toilets for leaks? \_\_\_\_\_
- Does your toilet leak? (Did the dye color appear in the bowl?)  

|  |           |           |
|--|-----------|-----------|
|  | _____     | _____     |
|  | Toilet #1 | Toilet #2 |
- 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  |
- 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 |
|------|------|-------|

- 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 |
|-------------|------------|------------------|

- Calculate how many cubic feet of water is in the tank. (Multiply Length x Width x Depth)  

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

|  |             |             |
|--|-------------|-------------|
|  | _____ gals. | _____ gals. |
|  | Toilet #1   | Toilet #2   |



**\$100 Toilet Rebate**



- Is your toilet a pre-1994 toilet? (Look at your answer in #3)  

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

|  |           |           |
|--|-----------|-----------|
|  | _____     | _____     |
|  | Toilet #1 | Toilet #2 |
- Does your family get a water bill from Waukesha Water Utility? \_\_\_\_\_  
 (Ask your parents)
- 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 |
- 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](http://www.ci.waukesha.wi.us/waterhome).

\_\_\_\_\_  
 Parent Signature

\_\_\_\_\_  
 Date

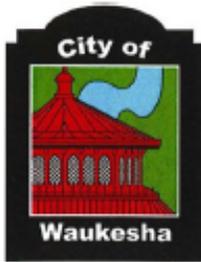


### **9. National Drinking Water Week / Rain Barrel Rebate Announcement**

May 5<sup>th</sup> – 11<sup>th</sup>, 2019 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 and talked about the rain barrel rebate program.

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 and twitter account. Copies of these items are shown on the following pages.



**Office of the Mayor**

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

**Shawn N. Reilly, Mayor**

sreilly@waukesha-wi.gov

**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, Waukesha has programs in place to encourage water conservation; and

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

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

WHEREAS, the Waukesha Water Utility encourages and provides \$100.00 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;

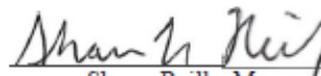
WHEREAS, we are all stewards of our water resources and infrastructure so that future generations will also have clean sustainable water;

NOW, THEREFORE, as Mayor of the City of Waukesha, I hereby proclaim May 5th to May 11<sup>th</sup>, 2019 as

**DRINKING WATER WEEK**

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

Signed this 3rd day of May, 2019.

  
Shawn Reilly, Mayor  
City of Waukesha





Submitted Photo

Waukesha Mayor Shawn Reilly reads the National Drinking Water Week Proclamation.

# Waukesha offering rain barrel rebate program

**WAUKESHA** — 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,” said 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: one-tenth 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 to \$100.

To qualify for the \$20 rain barrel rebate, Adelmeyer said 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

“A 50-60-gallon rain barrel, which connects to a downspout to capture rain water, can collect a surprising amount of water: one-tenth of an inch of rain falling on a 1,000-square-foot rooftop can fill a 50-gallon barrel.”

— Mary Adelmeyer, Waukesha Water Utility

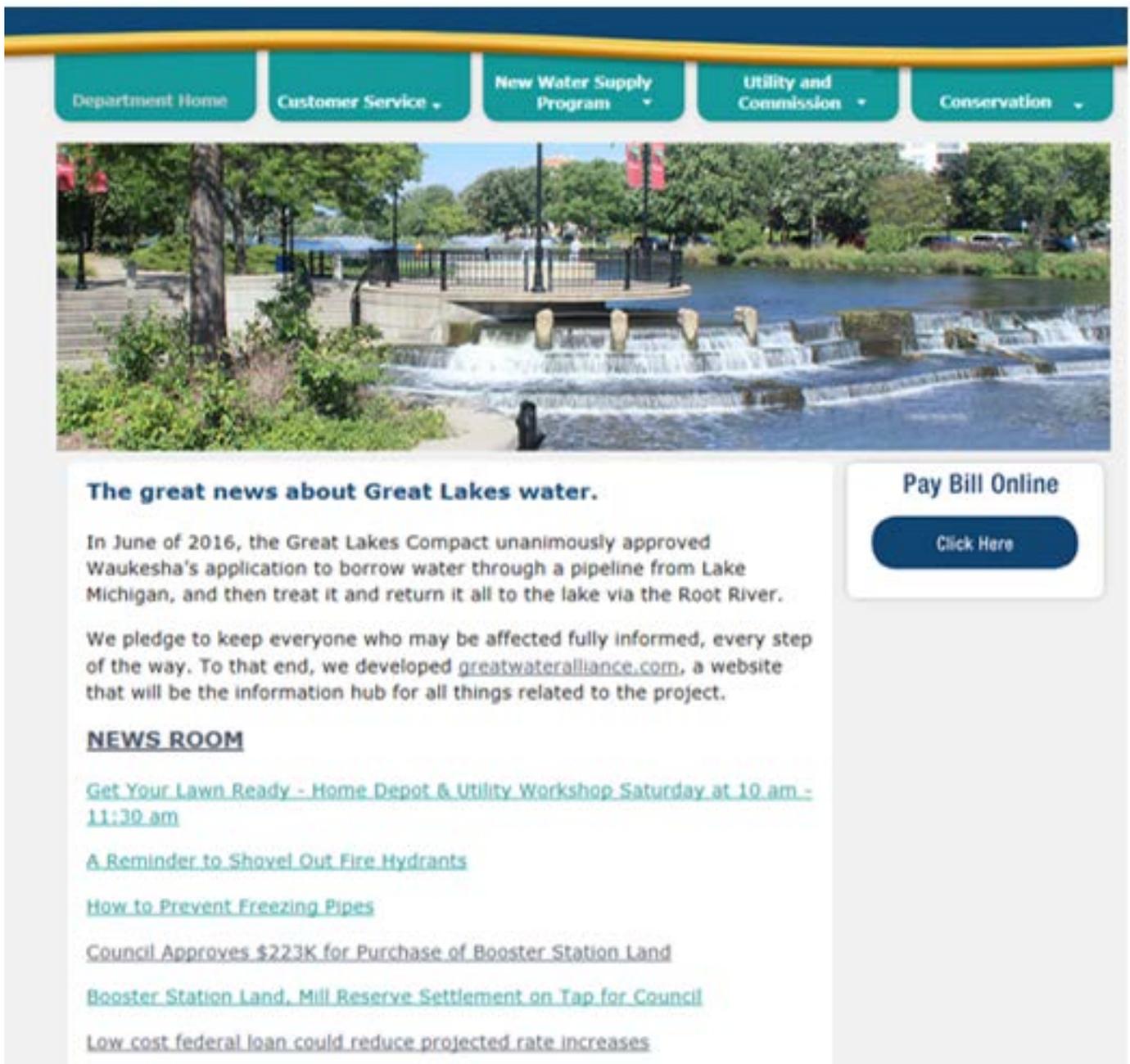
barrel rebates, the utility is also reminding customers about the \$100 WaterSense toilet rebate and the \$25 WaterSense shower head rebate.

For more detailed information, visit the conservation section on the utility’s website at [www.waukesha-water.com](http://www.waukesha-water.com).

## 10. 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, on the Utility's website, facebook page, and on the City's TV 25 local government and events channel.

In January 2019, we advertise our annual *How to Prevent Freezing Pipes* information on our website, in a press release, and in the GWA's newsletter (as shown previously in the GWA's newsletters section).



The screenshot shows a website header with five teal navigation tabs: "Department Home", "Customer Service", "New Water Supply Program", "Utility and Commission", and "Conservation". Below the tabs is a large image of a park waterfall. The main content area features a news article titled "The great news about Great Lakes water." with a sub-headline "In June of 2016, the Great Lakes Compact unanimously approved Waukesha's application to borrow water through a pipeline from Lake Michigan, and then treat it and return it all to the lake via the Root River." To the right of the article is a "Pay Bill Online" button with a "Click Here" link. Below the article is a "NEWS ROOM" section with several news items:

- [Get Your Lawn Ready - Home Depot & Utility Workshop Saturday at 10 am - 11:30 am](#)
- [A Reminder to Shovel Out Fire Hydrants](#)
- [How to Prevent Freezing Pipes](#)
- [Council Approves \\$223K for Purchase of Booster Station Land](#)
- [Booster Station Land, Mill Reserve Settlement on Tap for Council](#)
- [Low cost federal loan could reduce projected rate increases](#)

How to Prevent Freezing Pipes Advertised on the Utility's Website

## For Immediate Release

## Waukesha Water Utility

# Press Release

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

### Prevent Freezing Pipes

Waukesha, WI, January 2019 - Cold weather and wind chills are here. This 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.



## **11. Wisconsin Water Conservation Coalition Donation**

In partnership with Waukesha County, the City of Waukesha created the Wisconsin Water Conservation Coalition in 2006. The mission of the Coalition was to educate the general public about local drinking water resources and inspire residents, businesses, and institutions to use water conservation measures to create sustainable communities in Wisconsin.

Over the years, the Utility participated in the Coalition's work. However, the past two to three years, there has been very low membership participation. The Coalition's executive board decided to meet, discuss, and vote on whether or not the group wanted to continue its existence. The board voted and decided to put an end to the Coalition and donate the remainder of its funds to the Waukesha County Green Team.

The Waukesha County Green Team is a non-profit organization. Their mission, as explained on their website, is to promote environmental and economic sustainability in Waukesha County through education, communication, and local action.

The Coalition's board sent a cover letter with a check to the Green Team and asked them to use the funds for the purpose of promoting water conservation awareness.

A copy of the cover letter is shown on the next page.

July 15, 2019

Waukesha County Green Team  
Attn: Joanna Salinas, Outreach Coordinator  
1223 Timber Ridge, Suite 422  
Pewaukee, WI 53072

Dear Ms. Salinas (or To Whom It May Concern),

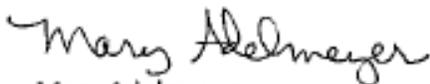
The Wisconsin Water Conservation Coalition (WWCC) has decided to no longer be in existence due to low membership participation. Our executive board voted and decided to donate the remainder of the money, in our checking account, to the Waukesha County Green Team.

Please find enclosed a check for \$736.68. We would sincerely appreciate if your group would please use these funds to promote water conservation awareness.

If you have any questions, please call Jayne Jenks, our board's vice-president, at Waukesha County Land Use at 262-896-8305, or Mary Adelmeyer, the Coalition's treasurer, at the Waukesha Water Utility at 262-409-4423.

Thank you.

Sincerely,



Mary Adelmeyer  
Wisconsin Water Conservation Coalition Treasurer

## **B. Community Presentations & Public Outreach Events**

In 2019, there were many community presentations and public outreach events that took place, including the following:

1. Home Depot's Get Your Lawn Ready & Outdoor Water Conservation Tips Workshop
2. UW-Extension's Home Improvement Workshop
3. City Interdepartmental Meetings
4. Water Sustainability and Safe Drinking Water Presentation at Marquette
5. 33<sup>rd</sup> Annual Inspection Conference Presentation at MMSD
6. The Management Conference Presentation at AWWA
7. City of Waukesha's Common Council Retreat Presentation
8. American Society Mechanical Engineers (ASME) Presentation
9. American Water Works Source Water Summit Presentation
10. American Water Works ACE19 Presentation by Kelly Zystra
11. American Water Works ACE19 Presentation by Chris Walter
12. Additional Public Outreach, Presentations, Interviews, & Meetings

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



Waukesha Water Utility partnering with Home Depot on a Workshop Regarding Outdoor Water Conservation

## **1. Home Depot's (and Waukesha Water Utility's) Outdoor Water Conservation Workshop**

In early spring of 2019, the Utility noticed that Waukesha's Home Depot scheduled a workshop on preparing for a healthy lawn. The Utility reached out to Home Depot to see if we could, once again, partner with them on co-presenting at their workshop. Home Depot welcomed us. The Utility's presentation focused on outdoor water conservation – which included WaterSense's sprinkler spruce up program, WaterSense certified irrigation controllers, rain barrels, rain gardens, the fact that established lawns do not need to be watered, the Utility's sprinkling ordinance, using mulch, keeping the mower raised 3", and other outdoor water conservation tips.

Since the Utility was already talking about the WaterSense label (with the irrigation controller and the sprinkler spruce up program), the Utility also shared what the WaterSense logo looks like and the benefits of using WaterSense certified products.

In addition to outdoor water conservation, the Utility also talked about EPA's National Fix a Leak Week (since the workshop was held one week prior to Fix a Leak week). The Utility shared information on how to find leaks (on outdoor water faucets, hose nozzles, and inside the home – especially with toilets, etc).

The audience was also given the following to take home:

- Information pertaining to WaterSense's sprinkler spruce up program
- A rain gauge
- A refrigerator magnet with the Waukesha's sprinkling ordinance
- Information about Fix a Leak week including dye tablets for testing toilets for leaks
- Applications for the Utility's rebates for toilets, showerheads, and rain barrels
- A brochure about *Rethinking Yard Care* from the UW Extension and Wisconsin Department of Natural Resources
- Information on rain barrels, rain gardens, and tips on outdoor water conservation

The Utility advertised this event in the local Newspaper, on the Utility's website, and in the City's e-newsletter (as previously mentioned).

## Fun Things to Do This Weekend

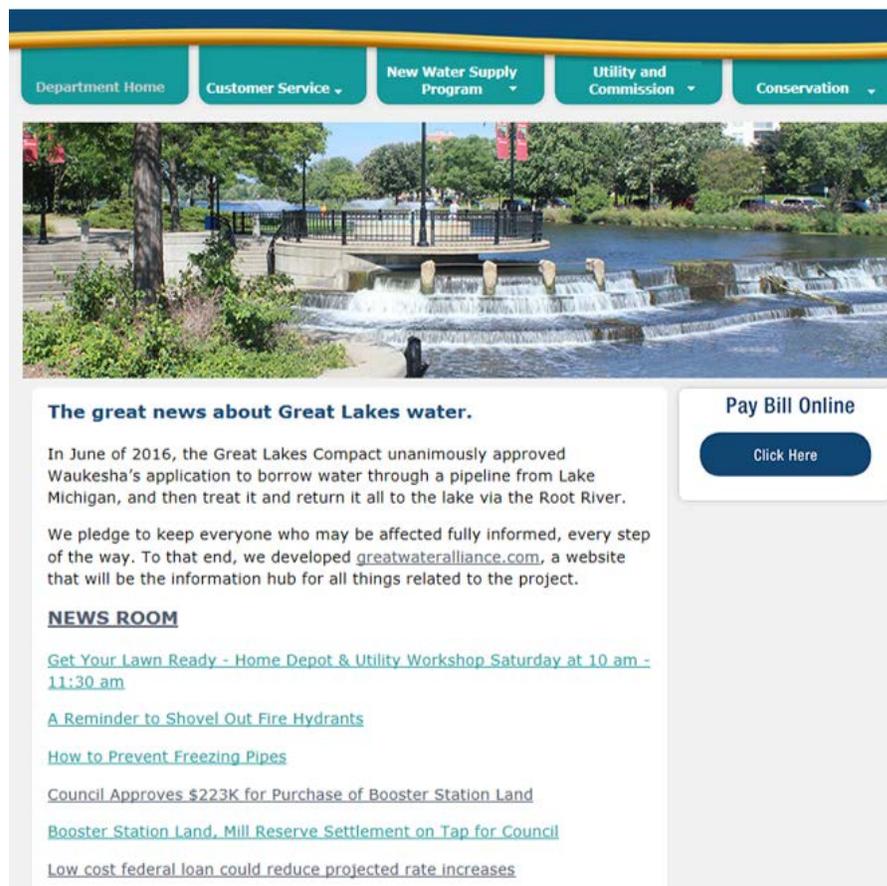
**Horwitz-DeRemer Planetarium** shows Saturday, 11 a.m. to noon "Two Small Pieces of Glass" for children, 1 p.m. to 2 p.m. "The Dark Matter Mystery: Exploring A Cosmic Secret" for adults, Retzer Nature Center, S14-W28167 Madison St., Town of Genesee. **Landscape, pest control, and outdoor water conservation tips**, 10 a.m. to 11:30 a.m. Saturday, Home Depot, 2320 W. Bluemound Road, **Waukesha**

Held by Home Depot and **Waukesha Water Utility**. Guidance on a checklist of lawn care tasks for spring. Register at [www.homedepot.com/l/Waukesha/WI/Waukesha](http://www.homedepot.com/l/Waukesha/WI/Waukesha), 53186/4918 or just show up. "The Wizard of Oz Unplugged," 7:30 p.m. today, 2 p.m. and 7:30 p.m. Saturday and 2 p.m. Sunday, **Waukesha Civic Theatre**, 264 W. Main St., **Waukesha** 262-547-0708, [www.waukesha.civictheatre.org](http://www.waukesha.civictheatre.org). **Girl Scout Cookie Weekend**, 10 a.m. to 2 p.m. Saturday, Pabst Farms Fleet Farm, 1555 Pabst Farms Circle. Event will be the last Girl Scout weekend event

of the season. **Trinity Irish Dancers**, 3 p.m. to 4:30 p.m. Saturday, Oconomowoc Public Library, 200 South St.

**Bridal Decor Sale by Rustic Manor 1848**, 11 a.m. to 2 p.m. Sunday, **Waukesha County Expo Center**, 1000 Northview Road, **Waukesha**. VIP admission \$8 at 11 a.m. \$4 general admission starting 11:30 a.m.

Home Depot's (and the Utility's) Workshop on Landscaping & Water Conservation Advertised in the Freeman



The screenshot shows the website's navigation menu with options: Department Home, Customer Service, New Water Supply Program, Utility and Commission, and Conservation. Below the menu is a large image of a park waterfall. The main content area features a news article titled "The great news about Great Lakes water." with text about the Great Lakes Compact and water borrowing from Lake Michigan. A "NEWS ROOM" section lists several articles, including "Get Your Lawn Ready - Home Depot & Utility Workshop Saturday at 10 am - 11:30 am". On the right side, there is a "Pay Bill Online" button with a "Click Here" link.

Workshop Advertised on the Utility's Website



Utility's Water Conservation Presentation at the UW-Extension's Home Improvement Workshop

## **2. UW-Extension's Home Improvement Workshops**

The UW-Extension held some Home Improvement Workshops for a couple of neighborhoods in the city of Waukesha. These neighborhoods are low to moderate income and the UW-Extension wanted to present them with inexpensive ways to help fix up their homes. The UW-Extension asked the Utility to be a guest speaker and talk about water conservation and rebate incentives.

The Utility began its presentation with an introduction on Waukesha's water – talking about Waukesha's current supply and the reasons we need a new water supply. The presentation focused on the importance of water conservation – the reason water conservation is needed and how customers can conserve water. The Utility talked about conservation for both the indoors and the outdoors.

The conservation presentation covered the following topics: established lawns do not need to be watered, Waukesha's annual sprinkling ordinance, rain barrels, rain gardens, and irrigation controllers. For indoor water conservation, the presentation focused on how to find and fix leaks, rebates for changing out the toilets and showerheads, the benefits of water efficient appliances, and water conserving behaviors.

The Utility also gave all attendees parting gifts. Each person received dye tablets for testing their toilets for leaks, a rain guage, a sprinkling ordinance magnet, activity/coloring book for kids, and applications for the toilet, showerhead, and rain barrel rebates. The presentation and gifts were well received and the attendees said they learned a lot.

A copy of the promotional flier for this event is shown on the next page.



# Home Improvement Series



Do you have a home improvement project in mind but need some guidance?

Come learn about strategies and resources to get started!

## Tuesday, April 16, 2019

Hear about the Aging in Place Program, Kitchen Deconstruction Program, and ReStore (for all incomes)

*Presented by Karl Fechner from Habitat for Humanity*

## Tuesday, April 30, 2019

Learn about the home permit process and code enforcement  
Bring your questions!

*Presented by Kristin Stone from City of Waukesha Community Development*

## Tuesday, May 7, 2019

Learn about The Home Consortium's Home Rehab Loan Program for low to moderate income households

*Presented by Debbie Narus from the Wisconsin Partnership for Housing Development*

AND

Discover money saving programs for water and get updated on the Waukesha Water Project

*Presented by Mary Adelmeyer from Waukesha Water Utility*

### Program Location:

Waukesha State Bank  
Community Room  
(151 E. St. Paul Ave., Waukesha)

No cost to attend but registration is encouraged (space is limited)

Come for one program or come for all!

### Program Time:

6:30 pm - 8:00 pm

Registration Link: <https://forms.gle/Ab46AA6KteAoDrmK6>

For More Information: [ann.wied@wisc.edu](mailto:ann.wied@wisc.edu) OR (262) 548-7788

*Program funded in part by the Greater Milwaukee Foundation and ProHealth Care*



University of Wisconsin, U.S. Department of Agriculture and Wisconsin Counties cooperating. University of Wisconsin-Madison Division of Extension provides equal opportunities in employment and programming including Title VI, Title IX, and the Americans with Disabilities Act (ADA) requirements.



Interdepartment Group Meeting 2019

### **3. Interdepartmental “IN” Meetings**

Every other month, the City holds interdepartmental meetings. Each department takes turn hosting the meeting. The purpose of the meetings are to get to know the other City departments, find out what each department does, and get a department update.

In 2019, there were 3 meetings. At each meeting, the Utility gave a department update, answered questions, and shared conservation ideas – especially for Fix a Leak Week and National Drinking Water Week. The Utility hosted the June meeting and all attendees were given a sprinkling ordinance magnet, a rain gauge, and information pertaining to conservation - including information regarding Waukesha's rebate incentives.

Waukesha recognizes that an important element of water conservation is the sustainability of our water supplies. During the following presentations, the sustainability of our water sources was discussed as part of the presentation.

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#### **4. Water Sustainability & Safe Drinking Water Presentation at Marquette University**

Waukesha Water Utility's General Manager, Dan Duchniak, gave a presentation at Marquette University regarding water sustainability and safe drinking water.

Dan began the presentation talking about Waukesha's current water supply. He talked about the condition of the aquifer – that the recharge is limited due to a confining layer of shale, the water levels have declined, and the quality has changed.

Dan also showed a series of slides that showed the simulated history of groundwater pumping and groundwater levels in southeast Wisconsin from the 1800's through the present. The Milwaukee/Chicago cone of depression is one of the largest areas of groundwater drawdown in North America. This information regarding the limited recharge, the declining water levels, and the regional drawdown illustrates that Waukesha's water source is unsustainable for the long term.

Once the water quality and sustainability issues of Waukesha's water supply was communicated, then Dan talked about Waukesha's Diversion Application, the approval process, and the development of a new water supply.



**5. Inspection '19 33<sup>rd</sup> Annual Conference at Milwaukee Metropolitan Sewage District (MMSD)**

Dan Duchniak gave a presentation at MMSD's '19 Annual Inspection Conference. Once again, Dan's presentation included information about Waukesha's current water supply and how its not sustainable and has a radium issue.

Dan also talked about the groundwater management areas, radium compliance, and emerging contaminants. He talked about the large cone of depression by Milwaukee/Chicago, shared the impacts of water supply alternatives on the wetlands, talked about the Diversion application/approval process, and Waukesha obtaining a new future water supply.

The  
**Utility**  
Management  
Conference™

AWWA | WEF

AWWA/WEF Utility Management Conference 2019

The Utility Management Conference

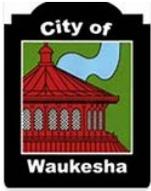
Date: 3/5/2019 - 3/8/2019

Venue: Renaissance Nashville Hotel, Nashville TN, United States

## **6. American Water Works Association (AWWA) Utility Management Conference – Nashville, TN**

Dan Duchniak gave a presentation at AWWA's Utility Management Conference. The presentation title was *Facts, Science, and Common Sense Uniting Communities*. Dan began the presentation talking about Waukesha's current water supply and the reasons Waukesha needs a new water supply. He talked about the supply options, the limited recharge, the cone of depression around Milwaukee/Chicago, and the impacts of water supply alternatives on wetlands.

Dan also talked about the Diversion application process, working with local authorities who have jurisdiction, and the variety of communication strategies that are used to unite the communities.



## **7. Waukesha Common Council Retreat**

Dan Duchniak gave a presentation to Waukesha's Common Council. He gave a review as to why Waukesha needs a new water source. He reminded the Council that Waukesha's aquifer is not sustainable and its wells are 3 times the limit set by the EPA for radium.

He also reviewed the Diversion Application and approval process; and talked about the benefits of a new water supply, the permitting process, the rate projections, and the transition plan.



MILWAUKEE  
SECTION

## 8. **ASME Presentation**

Dan gave a presentation to the ASME group. During the presentation, Dan spent a lot of time talking about worldwide sustainability issues. Then Dan talked about Waukesha's issues, he explained the reason Waukesha's groundwater quantity is limited, the reason the water quality is impaired, and how continued use would cause significant adverse environment impacts.

Dan also talked about Waukesha's water conservation programs (conservation water rates, daytime sprinkling ban, financial incentives for fixture replacements, public education and more).

Dan continued his presentation by talking about the Diversion Application and approval process, along with the costs, projected rate increases, implementation issues, returning 100% of the water back to the Great Lakes, and the transition plan.

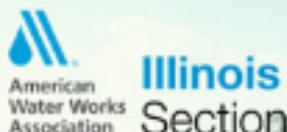


Kelly Zylstra, Waukesha Water Utility's Operations Manager, gave two presentations in 2019. The first presentation was to American Water Works Association (AWWA – Illinois Section) for the Source Water Summit; and the second presentation was for AWWA's Annual Conference Expo (ACE19).

## 9. American Water Works Association (AWWA) Source Water Summit

The title of Kelly's presentation for AWWA's Source Water Summit was *Waukesha's Challenge: Getting It Right the First Time, Designing and Constructing a new Drinking Water Supply System*. Kelly talked about the program drivers – how the deep aquifer replenishment is very slow due to the shale confining layer. She also gave an overview as to why Waukesha's groundwater supply is not sustainable. She talked about source water alternatives, gave an overview of the future water supply program, and the transition plan.

#SaveTheSource



# Source Water Summit

May 1, 2019 - Joliet

<https://www.isawwa.org/event/SW2019>

CEU TYPE: Technical

Training Classification: Water Sources & Treatment

IEPA#: 13665

## AGENDA:

|             |                                                                                                                                      |                                                                                                                                                                        |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7:30-8:00   | Breakfast/Check-in                                                                                                                   |                                                                                                                                                                        |
| 8:00-8:45   | The DuPage Water Commission: A Water Journey from Lake Michigan to your Tap                                                          | Terry McGhee, DuPage Water Commission                                                                                                                                  |
| 8:45-9:30   | Rethink Water: Joliet's Future Water Supply                                                                                          | Nick Gornick & Allison Swisher, City of Joliet                                                                                                                         |
| 9:30-10:15  | An Overview of At-Risk Water Supplies in Illinois: Assessing Water Quality and Quantity Concerns                                     | Dan Abrams, Illinois State Water Survey, Prairie Research Institute                                                                                                    |
| 10:15-11:00 | Waukesha's Challenge: Getting it Right the First Time, Designing and Constructing a New Drinking Water Supply System                 | Catharine Richardson, Greeley & Hansen and Kelly Zylstra, Waukesha Water Utility                                                                                       |
| 11:00-11:30 | Lunch                                                                                                                                |                                                                                                                                                                        |
| 11:30-12:00 | The 170-Year Tale of Three Sources                                                                                                   | Dave Schumacher, City of Aurora                                                                                                                                        |
| 12:00-12:30 | Expanding CLCJAWA's Customer Base for Sustainable Demand                                                                             | Jeff White, CLCJAWA & Jared Wendorf, CDM Smith                                                                                                                         |
| 12:30-1:15  | The Challenges of Chasing Price Savings when Switching Water Suppliers and How to Move from First Bids to Water Delivery in 8 Months | William Balling, WRB LLC Consulting & Mgmt Svcs                                                                                                                        |
| 1:15-2:00   | Lincoln IL Source Water - the Odyssey                                                                                                | Gabriel Bowden, Illinois American Water<br>Mike Stohl, Donohue & Associates, Inc.<br>Allen Wehrmann, INTERA, Inc.                                                      |
| 2:00-2:30   | Source Water Panel: Past, Present and Future                                                                                         | Moderator: Catharine Richardson, Greeley & Hansen<br>Terry McGhee, DuPage Water Commission<br>Kelly Zylstra, Waukesha Water Utility<br>Allison Swisher, City of Joliet |



## 10. American Water Works Association (AWWA) ACE19

Kelly's presentation for the ACE19 Conference was titled *Breaking New Ground: Preparing Communities Without Direct Benefits for a Large Infrastructure Program*. Kelly talked about the program drivers - that Waukesha's current water source is limited due to the deep aquifer's shale confining layer. Kelly also talked about the source water alternatives, the evaluation criteria, the partnerships with obtaining a new water source, and the necessary, detailed communications related to the transition for a new water supply.



## **11. American Water Works Association (AWWA) - ACE19**

Chris Walters, Waukesha Water Utility's Technical Services Manager, also gave a presentation at AWWA's ACE19 Conference. His presentation was titled *Pursuing One Water: Insights From Planning a New Water Supply & Return Flow System*. Chris talked about Waukesha's deep aquifer replenishment issues. He talked about the source water alternatives and the benefits of a new water supply.

Chris talked about how the new supply will help restore the natural groundwater flows towards the Great Lakes Basin, that Waukesha's new source will not impact the lake levels, but will enhance the habitat and fisheries in the Great Lakes Basin. Chris also talked about the route studies, the pipe materials, and lessons learned.

**12. Additional Public Outreach, Presentations, Interviews, & Meetings:**

Introduction to Great Water Alliance and Waukesha's Conservation Program

- Alderman Miller
- Alderman Moltzan
- Alderman Brown

## **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 5<sup>th</sup> Graders**

For the past 30 years, Waukesha Water Utility has partnered with the Waukesha School District to provide water education to all 5<sup>th</sup> 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:

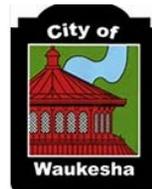
- the water cycle
- where their water comes from
- how their water is treated and distributed
- the quality and quantity of the water they use
- conservation methods that use water resources in a sustainable manner
- the costs of municipal water, and its value compared to bottled water

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 2019, we spent approximately 56 hours educating approximately 742 students, along with approximately 40 teachers and chaperones from the Waukesha School District.

## 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.



**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 2019 is as follows. Data is entered into the format below.

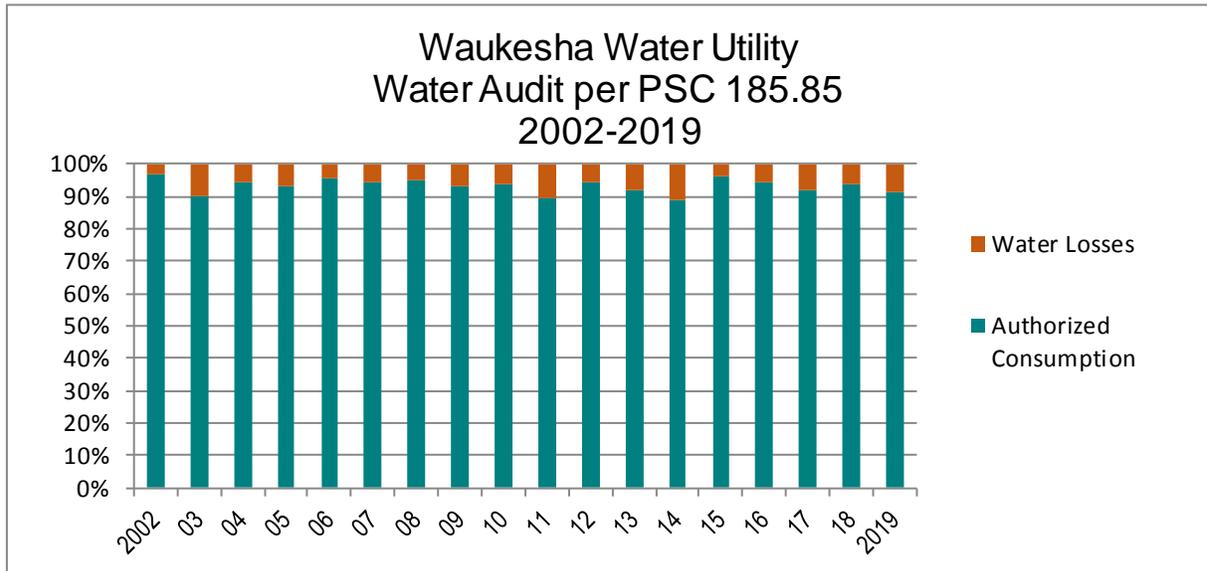
| Data Input |                                  |                      |
|------------|----------------------------------|----------------------|
|            |                                  | 2019 Total           |
|            | Sales - Metered                  | 1,846,220,000        |
|            | Sales - Est. Consumption         | -                    |
|            |                                  |                      |
|            | Plant                            | 167,300              |
|            | Water Analyzer Water Flow (9)    | 793,920              |
|            | Filter Back wash                 |                      |
|            | # 3                              | 4,375,000            |
|            | # 8                              | 5,160,000            |
|            | # 10                             | 4,535,000            |
|            | Flushing                         |                      |
|            | Mains                            | 7,026,306            |
|            | Services                         | -                    |
|            |                                  |                      |
|            | Main Breaks                      | 3,320,000            |
|            | Morgan Ave                       | -                    |
|            | Service Breaks                   | -                    |
|            | Filling Mains / New Construction | 1,211,410            |
|            | Fire (524-3647)                  | 1,079,155            |
|            |                                  |                      |
|            | Misc: Specify                    |                      |
|            | Cleaned Saylesville Reserv       | -                    |
|            | Well #10 Filter Rehab            | -                    |
|            | Eliminate 16" valve on North St  | -                    |
|            | Hydrant Repairs                  | 78,750               |
|            | Hydrant Replacement              | 12,000               |
|            | Hydrant Surveys                  | 42,700               |
|            | Valve replacements (2)           | 56,500               |
|            | Fire Flow Test                   | 43,910               |
|            |                                  |                      |
|            | Leakage & Overflows at Towers    | 303,235              |
|            |                                  |                      |
|            | <b>Total Pumped</b>              | <b>2,045,845,000</b> |

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

| <b>Water Balance</b>   |                               |                   |
|------------------------|-------------------------------|-------------------|
|                        |                               | <u>2019 Total</u> |
|                        | System Input Volume =         | 2,045,845,000     |
|                        |                               |                   |
|                        | Authorized Consumption =      | 1,870,801,951     |
|                        | Water Losses =                | 175,043,049       |
|                        |                               | 2,045,845,000     |
|                        |                               |                   |
|                        | Authorized - Billed =         | 1,846,220,000     |
|                        | Authorized - UnBilled =       | 24,581,951        |
|                        | Losses - Apparent =           | 171,419,814       |
|                        | Losses - Real =               | 3,623,235         |
|                        |                               | 2,045,845,000     |
|                        |                               |                   |
| Authorized Consumption | Billed & Metered              | 1,846,220,000     |
|                        | Billed & UnMetered            | -                 |
|                        | UnBilled & Metered            | 22,057,526        |
|                        | UnBilled & UnMetered          | 2,524,425         |
| Water Losses           | Unauthorized Consumption      | 171,419,814       |
|                        | Meter Inaccuracies            |                   |
|                        | Data Handling Errors          |                   |
|                        | Main Breaks                   | 3,320,000         |
|                        | Leakage & Overflows at Towers | 303,235           |
|                        | Service Breaks                | -                 |
|                        |                               | 2,045,845,000     |
|                        |                               |                   |
|                        | Revenue Water =               | 1,846,220,000     |
|                        | Non Revenue Water =           | 199,625,000       |
|                        |                               | 2,045,845,000     |

The summary, above, indicates that in 2019, 8.6% 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 seventeen years and the data itself is indicative of a diligently maintained distribution system. (The Utility reformatted its data from 2002 forward so that its display is consistent with the 2012 requirements.) Accounted for Water ranges between 88.8% and 96.5%.



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 2019, 1,933 hydrants were surveyed. Four leaks were detected and the related hydrants were repaired immediately.

In addition, the Utility replaced 16,233.8 feet of water main in 2019 as compared to 10,390 in 2018. AWWA's 1% replacement goal represents roughly 17,608 feet.

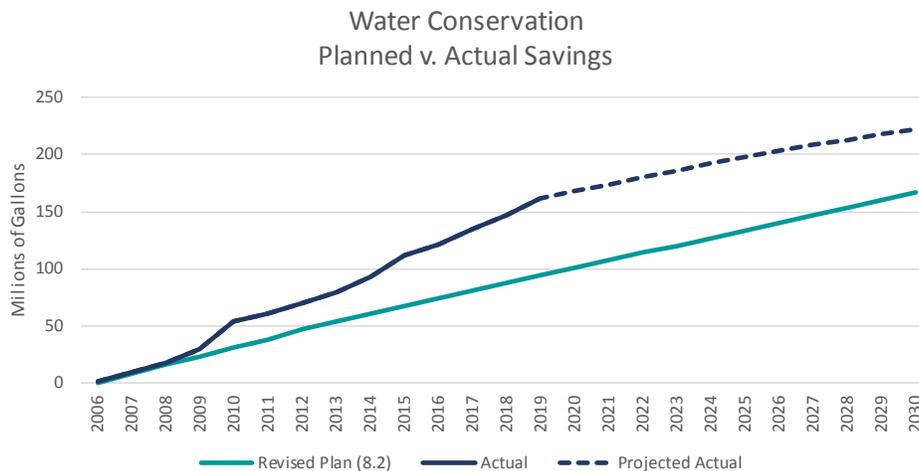
## VIII. CONCLUSION

| Year | Annual Pumpage | Avg Day Pumpage | MILLIONS OF GALLONS |            |            |             |              |              |              |      |      |       | Peak Day   | Notes                                             |                          |
|------|----------------|-----------------|---------------------|------------|------------|-------------|--------------|--------------|--------------|------|------|-------|------------|---------------------------------------------------|--------------------------|
|      |                |                 | < 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 |       |            |                                                   |                          |
|      |                |                 | Number of Days      |            |            |             |              |              |              |      |      |       |            |                                                   |                          |
| 2019 | 2,039,436      | 5,587           | 365                 | -          | -          | -           | -            | -            | -            | -    | -    | -     | -          | 7.72                                              |                          |
| 2018 | 2,068,522      | 5,667           | 362                 | 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        |                          |
| 2005 | 2,838,403      | 7,776           | 225                 | 78         | 6          | 28          | 18           | 7            | 3            | 140  | 62   | 12.87 | Dry Year   |                                                   |                          |
| 2004 | 2,698,980      | 7,374           | 276                 | 59         | 6          | 20          | 5            | -            | -            | 90   | 31   | 10.48 | Rainy Year |                                                   |                          |
| 2003 | 2,795,859      | 7,660           | 250                 | 67         | 3          | 22          | 18           | 5            | -            | 115  | 48   | 11.67 |            |                                                   |                          |
| 2002 | 2,953,216      | 8,091           | 176                 | 119        | 10         | 28          | 17           | 14           | 1            | 189  | 70   | 12.78 |            |                                                   |                          |
| 2001 | 2,821,968      | 7,731           | 217                 | 103        | 8          | 16          | 15           | 2            | 4            | 148  | 45   | 12.53 |            |                                                   |                          |
| 2000 | 2,836,140      | 7,749           | 190                 | 139        | 15         | 21          | 1            | -            | -            | 176  | 37   | 10.15 |            |                                                   |                          |
| 1999 | 3,028,414      | 8,297           | 116                 | 145        | 23         | 57          | 21           | 3            | -            | 249  | 104  | 11.59 |            |                                                   |                          |
| 1998 | 2,974,540      | 8,149           | 156                 | 123        | 14         | 49          | 16           | 5            | 2            | 209  | 86   | 12.79 |            |                                                   |                          |

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

- Total water pumped has steadily declined
- Average day pumpage has steadily declined
- The number of days where >7.8 million gallons needed to be pumped has decreased from a high of 145 in 1999 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 203,300,000 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.