Class AB

WATER, ELECTRIC, OR JOINT UTILITY ANNUAL REPORT

OF

WAUKESHA WATER UTILITY CITY OF

PO BOX 1648
WAUKESHA, WI 53187-1648

For the Year Ended: DECEMBER 31, 2017

TO

PUBLIC SERVICE COMMISSION OF WISCONSIN

P.O. Box 7854
Madison, WI 53707-7854
(608) 266-3766

This form is required under Wis. Stat. § 196.07. Failure to file the form by the statutory filing date can result in the imposition of a penalty under Wis. Stat. § 196.66. The penalty which can be imposed by this section of the statutes is a forfeiture of not less than $25 nor more than $5,000 for each violation. Each day subsequent to the filing date constitutes a separate and distinct violation. The filed form is available to the public and personally identifiable information may be used for purposes other than those related to public utility regulation.

I ***JOSEPH P. CIURRO, CPA***, ***ADMINISTRATIVE SERVICES MANAGER*** of ***WAUKESHA WATER UTILITY CITY OF***, certify that I am the person responsible for accounts; that I have examined the following report and, to the best of my knowledge, information and belief, it is a correct statement of the business and affairs of said utility for the period covered by the report in respect to each and every matter set forth therein.

Date Signed: ***3/30/2018***

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Identification and Ownership - Contacts

Utility employee in charge of correspondence concerning this report

Name: JOSEPH P. CIURRO, CPA

Title: ADMINISTRATIVE SERVICES MANAGER

Mailing Address: P.O. BOX 1648
WAUKESHA, WI 53187-1648

Phone: (262) 409-4420

Email Address: jciurro@waukesha-water.com

Accounting firm or consultant preparing this report (if applicable)

Name:

Title:

Mailing Address:

Phone:

Email Address:

Name and title of utility General Manager (or equivalent)

Name: DANIEL S. DUCHNIAK, PE

Title: GENERAL MANAGER

Mailing Address: P.O. BOX 1648
WAUKESHA, WI 53187-1648

Phone: (262) 409-4440

Email Address: dduchniak@waukesha-water.com

President, chairman, or head of utility commission/board or committee

Name: JOSEPH PIATT

Title: COMMISSION PRESIDENT

Mailing Address: 727 ROBERTA AVENUE
WAUKESHA, WI 53186

Phone: (262) 548-9991

Email Address: jpiatt@carrollu.edu

Identification and Ownership - Governing Authority and Audit Information

Utility Governing Authority

Select the governing authority for this utility.

_x_Reports to utility board/commission

___Reports directly to city/village council

Audit Information

Are utility records audited by individulas or firms other than utility employees? _x_Yes __No

Date of most recent audit report: 12/31/2016

Period covered by most recent audit: JANUARY 1, 2017 - DECEMBER 31, 2017

Individual or firm, if other than utility employee, auditing utility records

Name:	JODI DOBSON, CPA
Title:	PARTNER
Organization Name:	BAKER TILLY VIRCHOW KRAUSE, LLP
USPS Address:	P.O. BOX 7398
City State Zip	MADISON, WI 53707-7398
Telephone:	(608) 240-2469
Email Address:	jodi.dobson@bakertilly.com

Identification and Ownership - Contract Operations

Do you have any contracts?

Are any the utility administrative or operational functions under contract or agreement with an outside provider for the year covered by this annual report and/or current year (i.e., operation of water or sewer treatment plant)? **NO**

Income Statement

Particulars (a)	This Year (b)	Last Year (c)	
UTILITY OPERATING INCOME			1
Operating Revenues (400)	11,020,365	11,212,382	2
Operating Expenses:			3
Operation and Maintenance Expense (401-402)	4,933,504	4,950,445	4
Depreciation Expense (403)	1,725,358	1,613,884	5
Amortization Expense (404-407)	0	0	6
Taxes (408)	1,909,613	1,892,296	7
Total Operating Expenses	**8,568,475**	**8,456,625**	8
Net Operating Income	**2,451,890**	**2,755,757**	9
Income from Utility Plant Leased to Others (412-413)			10
Utility Operating Income	**2,451,890**	**2,755,757**	11
OTHER INCOME			12
Income from Merchandising, Jobbing and Contract Work (415-416)	3,542	2,115	13
Income from Nonutility Operations (417)	5,198	15,839	14
Nonoperating Rental Income (418)			15
Interest and Dividend Income (419)	292,868	137,378	16
Miscellaneous Nonoperating Income (421)	638,502	1,682,182	17
Total Other Income	**940,110**	**1,837,514**	18
Total Income	**3,392,000**	**4,593,271**	19
MISCELLANEOUS INCOME DEDUCTIONS			20
Miscellaneous Amortization (425)	(191,106)	(191,106)	21
Other Income Deductions (426)	837,138	729,551	22
Total Miscellaneous Income Deductions	**646,032**	**538,445**	23
Income Before Interest Charges	**2,745,968**	**4,054,826**	24
INTEREST CHARGES			25
Interest on Long-Term Debt (427)	1,031,421	977,469	26
Amortization of Debt Discount and Expense (428)	100,840	223,960	27
Amortization of Premium on Debt--Cr. (429)	279,729	219,432	28
Interest on Debt to Municipality (430)	0	0	29
Other Interest Expense (431)	701,577	390,093	30
Interest Charged to Construction--Cr. (432)	43,497	140,649	31
Total Interest Charges	**1,510,612**	**1,231,441**	32
Net Income	**1,235,356**	**2,823,385**	33
EARNED SURPLUS			34
Unappropriated Earned Surplus (Beginning of Year) (216)	72,305,575	71,140,835	35
Balance Transferred from Income (433)	1,235,356	2,823,385	36
Miscellaneous Credits to Surplus (434)		461,227	37
Miscellaneous Debits to Surplus--Debit (435)	2,761,962	2,119,872	38
Appropriations of Surplus--Debit (436)			39
Appropriations of Income to Municipal Funds--Debit (439)			40
Total Unappropriated Earned Surplus End of Year (216)	**70,778,969**	**72,305,575**	41

Income Statement Account Details

- Report each item (when individually or when like items are combined) greater than $10,000 (class AB), $5,000 (class C) and $2,000 (class D) and all other lesser amounts grouped as Miscellaneous. Describe fully using other than account titles.
- Nonregulated sewer income should be reported as Miscellaneous Nonoperating Income, Account 421.

Description (a)	Earnings (216.1) (b)	Contributions (216.2) (c)	Total This Year (d)		
UTILITY OPERATING INCOME	0	0	0		1
Operating Revenues (400)	0	0	0		2
Derived	11,020,365		11,020,365		3
Total (Acct. 400)	11,020,365	0	11,020,365		4
Operation and Maintenance Expense (401-402)	0	0	0		5
Derived	4,933,504		4,933,504		6
Total (Acct. 401-402)	4,933,504	0	4,933,504		7
Depreciation Expense (403)	0	0	0		8
Derived	1,725,358		1,725,358		9
Total (Acct. 403)	1,725,358	0	1,725,358		10
Amortization Expense (404-407)	0	0	0		11
Derived	0		0		12
Total (Acct. 404-407)	0	0	0		13
Taxes (408)	0	0	0		14
Derived	1,909,613		1,909,613		15
Total (Acct. 408)	1,909,613	0	1,909,613		16
TOTAL UTILITY OPERATING INCOME	2,451,890	0	2,451,890		17
OTHER INCOME	0	0	0		18
Income from Merchandising, Jobbing and Contract Work (415-416)	0	0	0		19
Derived	3,542	0	3,542		20
Total (Acct. 415-416)	3,542	0	3,542		21
Income from Nonutility Operations (417)	0	0	0		22
MISC NON-OPERATING REVENUE	5,198		5,198		23
Total (Acct. 417)	5,198	0	5,198		24
Interest and Dividend Income (419)	0	0	0		25
INTEREST INCOME	292,868		292,868		26
Total (Acct. 419)	292,868	0	292,868		27
Miscellaneous Nonoperating Income (421)	0	0	0		28
Contributed Plant - Water		638,502	638,502	*	29
Impact Fees - Water			0		30
Total (Acct. 421)	0	638,502	638,502		31
TOTAL OTHER INCOME	301,608	638,502	940,110		32
MISCELLANEOUS INCOME DEDUCTIONS	0	0	0		33
Miscellaneous Amortization (425)	0	0	0		34
Regulatory Liability (253) Amortization	(191,106)		(191,106)		35
Total (Acct. 425)	(191,106)	0	(191,106)		36
Other Income Deductions (426)	0	0	0		37
Depreciation Expense on Contributed Plant - Water		748,064	748,064		38
LOBBYING EXPENSE	88,098		88,098		39
MISC INTEREST EXPENSE	976		976		40

Income Statement Account Details

- Report each item (when individually or when like items are combined) greater than $10,000 (class AB), $5,000 (class C) and $2,000 (class D) and all other lesser amounts grouped as Miscellaneous. Describe fully using other than account titles.
- Nonregulated sewer income should be reported as Miscellaneous Nonoperating Income, Account 421.

Description (a)	Earnings (216.1) (b)	Contributions (216.2) (c)	Total This Year (d)	
Total (Acct. 426)	89,074	748,064	837,138	41
TOTAL MISCELLANEOUS INCOME DEDUCTIONS	(102,032)	748,064	646,032	42
INTEREST CHARGES	0	0	0	43
Interest on Long-Term Debt (427)	0	0	0	44
Derived	1,031,421		1,031,421	45
Total (Acct. 427)	1,031,421	0	1,031,421	46
Amortization of Debt Discount and Expense (428)	0	0	0	47
AMORT OF PREPAID INTEREST EXP/LOSS	46,743		46,743	48
NOTE PAYABLE 2017	54,097		54,097	49
Total (Acct. 428)	100,840	0	100,840	50
Amortization of Premium on Debt--Cr. (429)	0	0	0	51
BONDS	113,305		113,305	52
NOTES PAYABLE	166,424		166,424	53
Total (Acct. 429)	279,729	0	279,729	54
Interest on Debt to Municipality (430)	0	0	0	55
Derived	0		0	56
Total (Acct. 430)	0	0	0	57
Other Interest Expense (431)	0	0	0	58
Derived	701,577		701,577	59
Total (Acct. 431)	701,577	0	701,577	60
Interest Charged to Construction--Cr. (432)	0	0	0	61
INTEREST EXPENSE CONTRA	43,497		43,497	62
Total (Acct. 432)	43,497	0	43,497	63
TOTAL INTEREST CHARGES	1,510,612	0	1,510,612	64
NET INCOME	1,344,918	(109,562)	1,235,356	65
EARNED SURPLUS	0	0	0	66
Unappropriated Earned Surplus (Beginning of Year) (216)	0	0	0	67
Derived	43,058,419	29,247,156	72,305,575	68
Total (Acct. 216)	43,058,419	29,247,156	72,305,575	69
Balance Transferred from Income (433)	0	0	0	70
Derived	1,344,918	(109,562)	1,235,356	71
Total (Acct. 433)	1,344,918	(109,562)	1,235,356	72
Miscellaneous Debits to Surplus--Debit (435)	0	0	0	73
Adj a/n 2535 to Zero & Restate OPEB Balance per GASB 75	2,761,962		2,761,962 *	74
Total (Acct. 435)	2,761,962	0	2,761,962	75
UNAPPROPRIATED EARNED SURPLUS (END OF YEAR)	41,641,375	29,137,594	70,778,969	76

Income Statement Account Details

- Report each item (when individually or when like items are combined) greater than $10,000 (class AB), $5,000 (class C) and $2,000 (class D) and all other lesser amounts grouped as Miscellaneous. Describe fully using other than account titles.
- Nonregulated sewer income should be reported as Miscellaneous Nonoperating Income, Account 421.

Income Statement Account Details (Page F-02)

Amount of Contributed Plant – Water (421) does not match the total Additions During Year entered on Water Utility Plant in Service – Plant Financed by Contributions, please explain fully.

The contribution from the developer was received in a prior year.

Amount of Miscellaneous Debits to Surplus (Acct 435) exceeds $10,000, please explain fully.

A/N 435 Misc Debits to Surplus: $2,761,962 – adjust a/n 2535 to zero and restate OPEB balance per GASB 75.

Income from Merchandising, Jobbing & Contract Work (Accts. 415-416)

Particulars (a)	Water (b)	Electric (c)	Gas (d)	Sewer (e)	Total (f)	
Revenues						1
Revenues (account 415)	7,402				**7,402**	2
Cost and Expenses of Merchandising, Jobbing and Contract Work (416)						3
Cost of merchandise sold	3,860				**3,860**	4
Payroll					**0**	5
Materials					**0**	6
Taxes					**0**	7
Total costs and expenses	**3,860**	**0**	**0**	**0**	**3,860**	8
Net Income (or loss)	**3,542**	**0**	**0**	**0**	**3,542**	9

Revenues Subject to Wisconsin Remainder Assessment

- Report data necessary to calculate revenue subject to Wisconsin remainder assessment pursuant to Wis. Stat § 196.85(2) and Wis. Admin. Code Ch. PSC 5.
- If the sewer department is not regulated by the PSC, do not report sewer department in data column (d).

Description (a)	Water Utility (b)	Electric Utility (c)	Gas Utility (d)	Sewer Utility (Regulated Only (e)	Total (f)	
Total operating revenues	11,020,365				**11,020,365**	1
Less: interdepartmental sales	0				**0**	2
Less: interdepartmental rents	0				**0**	3
Less: return on net investment in meters charged to regulated sewer department. (Do not report if nonregulated sewer.)					**0**	4
Less: uncollectibles directly expensed as reported in water acct. 904 (690 class D), sewer acct. 843, and electric acct. 904 -or- Net write-offs when Accumulated Provision for Uncollectible Accounts (acct. 144) is maintained	820				**820**	5
Revenues subject to Wisconsin Remainder Assessment	**11,019,545**	**0**	**0**	**0**	**11,019,545**	6

Distribution of Total Payroll

- Amounts charged to Utility Financed and to Contributed Plant accounts should be combined and reported in plant or accumulated depreciation accounts.
- Amount originally charged to clearing accounts as shown in column (b) should be shown as finally distributed in column (c).
- The amount for clearing accounts in column (c) is entered as a negative for account "Clearing Accounts" and the distributions to accounts on all other lines in column (c) will be positive with the total of column (c) being zero.
- Provide additional information in the schedule footnotes when necessary.

Accounts Charged (a)	Direct Payroll Distribution (b)	Allocation of Amounts Charged Clearing Accts. (c)	Total (d)	
Water operating expenses	1,332,409	336,025	**1,668,434**	1
Electric operating expenses			**0**	2
Gas operating expenses			**0**	3
Heating operating expenses			**0**	4
Sewer operating expenses			**0**	5
Merchandising and jobbing			**0**	6
Other nonutility expenses			**0**	7
Water utility plant accounts	248,612		**248,612**	8
Electric utility plant accounts			**0**	9
Gas utility plant accounts			**0**	10
Heating utility plant accounts			**0**	11
Sewer utility plant accounts			**0**	12
Accum. prov. for depreciation of water plant			**0**	13
Accum. prov. for depreciation of electric plant			**0**	14
Accum. prov. for depreciation of gas plant			**0**	15
Accum. prov. for depreciation of heating plant			**0**	16
Accum. prov. for depreciation of sewer plant			**0**	17
Clearing accounts	336,025	(336,025)	**0**	18
All other accounts	267,478		**267,478** *	19
Total Payroll	**2,184,524**	**0**	**2,184,524**	20

Distribution of Total Payroll

- Amounts charged to Utility Financed and to Contributed Plant accounts should be combined and reported in plant or accumulated depreciation accounts.
- Amount originally charged to clearing accounts as shown in column (b) should be shown as finally distributed in column (c).
- The amount for clearing accounts in column (c) is entered as a negative for account "Clearing Accounts" and the distributions to accounts on all other lines in column (c) will be positive with the total of column (c) being zero.
- Provide additional information in the schedule footnotes when necessary.

Distribution of Total Payroll (Page F-05)

General Footnote

Other Accounts - $55,155 of the amount listed in other accounts relates to labor booked to a/n 1865 conservation expenditures. $156,616 of the amount listed under other accounts relates to labor booked to a/n 1830 preliminary investigations for work on the Great Water Alliance project.

Full-Time Employees (FTE)

- Use FTE numbers where FTE stands for Full-Time Employees or Full-Time Equivalency. FTE can be computed by using total hours worked/2080 hours for a fiscal year. Estimate to the nearest hundredth. If an employee works part time for more than one industry then determine FTE based on estimate of hours worked per industry.
- Example: An employee worked 35% of their time on electric jobs, 30% on water jobs, 20% on sewer jobs and 15% on municipal nonutility jobs. The FTE by industry would be .35 for electric, .30 for water and .20 for sewer.

	Industry (a)	FTE (b)	
1	Water	30.0	
2	Electric		
3	Gas		
4	Sewer		

Balance Sheet

Assets and Othe Debits (a)	Balance End of Year (b)	Balance First of Year (c)	
ASSESTS AND OTHER DEBITS			1
UTILITY PLANT			2
Utility Plant (101)	124,168,397	122,241,499	3
Less: Accumulated Provision for Depreciation and Amortization of Utility Plant (111)	31,521,639	29,413,848	4
Utility Plant Acquisition Adjustments (117-118)	0	0	5
Other Utility Plant Adjustments (119)	0	0	6
Net Utility Plant	**92,646,758**	**92,827,651**	7
OTHER PROPERTY AND INVESTMENTS			8
Nonutility Property (121)	0	0	9
Less: Accumulated Provision for Depreciation and Amortization of Nonutility Property (122)	0	0	10
Investment in Municipality (123)	0	0	11
Other Investments (124)	0	805	12
Sinking Funds (125)	2,862,044	4,119,350	13
Depreciation Fund (126)	13,734,163	15,118,263	14
Other Special Funds (128)	0	0	15
Total Other Property and Investments	**16,596,207**	**19,238,418**	16
CURRENT AND ACCRUED ASSETS			17
Cash (131)	1,985,110	2,069,586	18
Special Deposits (134)	0	0	19
Working Funds (135)	844	1,936	20
Temporary Cash Investments (136)	9,272,002	9,285,329	21
Notes Receivable (141)	0	0	22
Customer Accounts Receivable (142)	4,929,030	4,282,742	23
Other Accounts Receivable (143)	0	0	24
Accumulated Provision for Uncollectible Accounts- -Cr. (144)	6,392	9,821	25
Receivables from Municipality (145)	555,466	532,515	26
Plant Materials and Operating Supplies (154)	413,799	479,913	27
Merchandise (155)	0	0	28
Other Materials and Supplies (156)	0	0	29
Stores Expense (163)	0	0	30
Prepayments (165)	144,965	140,746	31
Interest and Dividends Receivable (171)	0	0	32
Accrued Utility Revenues (173)	0	0	33
Miscellaneous Current and Accrued Assets (174)	(120,942)	(225,396)	34
Total Current and Accrued Assets	**17,173,882**	**16,557,550**	35
DEFERRED DEBITS			36
Unamortized Debt Discount and Expense (181)	409,003	455,746	37
Extraordinary Property Losses (182)	0	0	38
Preliminary Survey and Investigation Charges (183)	15,847,283	1,774,472	39
Clearing Accounts (184)	0	0	40
Temporary Facilities (185)	0	0	41
Miscellaneous Deferred Debits (186)	997,542	1,270,057	42
Total Deferred Debits	**17,253,828**	**3,500,275**	43
TOTAL ASSETS AND OTHER DEBITS	**143,670,675**	**132,123,894**	44

Balance Sheet

Liabilities and Othe Credits (a)	Balance End of Year (b)	Balance First of Year (c)	
LIABILITIES AND OTHER CREDITS			1
PROPRIETARY CAPITAL			2
Capital Paid in by Municipality (200)	2,669,743	2,666,484	3
Appropriated Earned Surplus (215)	0	0	4
Unappropriated Earned Surplus (216)	70,778,969	72,305,575	5
Total Proprietary Capital	**73,448,712**	**74,972,059**	6
LONG-TERM DEBT			7
Bonds (221)	28,179,042	28,598,229	8
Advances from Municipality (223)	0	0	9
Other Long-Term Debt (224)	27,285,000	17,400,000	10
Total Long-Term Debt	**55,464,042**	**45,998,229**	11
CURRENT AND ACCRUED LIABILITIES			12
Notes Payable (231)	0	0	13
Accounts Payable (232)	1,523,763	782,203	14
Payables to Municipality (233)	2,810,537	2,425,613	15
Customer Deposits (235)	188,280	93,325	16
Taxes Accrued (236)	1,793,627	1,774,813	17
Interest Accrued (237)	390,162	438,051	18
Tax Collections Payable (241)	6,086	6,280	19
Miscellaneous Current and Accrued Liabilities (242)	326,569	319,600	20
Total Current and Accrued Liabilities	**7,039,024**	**5,839,885**	21
DEFERRED CREDITS			22
Unamortized Premium on Debt (251)	2,570,948	2,568,459	23
Customer Advances for Construction (252)	0	0	24
Other Deferred Credits (253)	5,147,949	2,745,263	25
Total Deferred Credits	**7,718,897**	**5,313,722**	26
OPERATING RESERVES			27
Property Insurance Reserve (261)	0	0	28
Injuries and Damages Reserve (262)	0	0	29
Pensions and Benefits Reserve (263)	0	0	30
Miscellaneous Operating Reserves (265)	0	0	31
Total Operating Reserves	**0**	**0**	32
TOTAL LIABILITIES AND OTHER CREDITS	**143,670,675**	**132,123,895**	33

Net Utility Plant

- Report utility plant accounts and related accumulated provisions for depreciation and amortization after allocation of common plant accounts and related provisions for depreciation and amortization to utility departments as of December 31.

Particulars (a)	Water (b)	Electric (c)	Gas (d)	Sewer (e)	
First of Year					1
Total Utility Plant - First of Year	122,241,499	0	0	0	2
	122,241,499	**0**	**0**	**0**	3
Plant Accounts					4
Utility Plant in Service - Financed by Utility Operations or by the Municipality (101.1)	82,842,227				5
Utility Plant in Service - Contributed Plant (101.2)	40,678,233				6
Utility Plant Purchased or Sold (102)					7
Utility Plant Leased to Others (104)					8
Property Held for Future Use (105)	435,090				9
Completed Construction not Classified (106)					10
Construction Work in Progress (107)	212,847				11
Total Utility Plant	**124,168,397**	**0**	**0**	**0**	12
Accumulated Provision for Depreciation and Amortization					13
Accumulated Provision for Depreciation of Utility Plant in Service - Financed by Utility Operations or by the Municipality (111.1)	20,014,854				14
Accumulated Provision for Depreciation of Utility Plant in Service - Contributed Plant (111.2)	11,506,785				15
Accumulated Provision for Depreciation of Utility Plant Leased to Others (112)					16
Accumulated Provision for Depreciation of Property Held for Future Use (113)					17
Accumulated Provision for Amortization of Utility Plant in Service (114)					18
Accumulated Provision for Amortization of Utility Plant Leased to Others (115)					19
Accumulated Provision for Amortization of Property Held for Future Use (116)					20
Total Accumulated Provision	**31,521,639**	**0**	**0**	**0**	21
Accumulated Provision for Depreciation and Amortization					22
Utility Plant Acquisition Adjustments (117)					23
Accumulated Provision for Amortization of Utility Plant Acquisition Adjustments (118)					24
Other Utility Plant Adjustments (119)					25
Total Other Utility Plant Accounts	**0**	**0**	**0**	**0**	26
Net Utility Plant	**92,646,758**	**0**	**0**	**0**	27

Accumulated Provision for Depreciation of Utility Plant on Utility Plant Financed by Utility Operations or by the Municipality (Acct. 111.1)

Depreciation Accruals (Credits) during the year (111.1):

- Report the amounts charged in the operating sections to Depreciation Expense (403).
- If sewer operations are nonregulated, do not report sewer depreciation on this schedule.
- Report the Depreciation Expense on Meters charged to sewer operations as an addition in the Water Column. If the sewer is also a regulated utility by the PSC, report an equal amount as a reduction in the Sewer column.
- Report all other accruals charged to other accounts, such as to clearing accounts.

Description (a)	Water (b)	Electric (c)	Gas (d)	Sewer (e)	Total (f)	
Balance First of Year (111.1)	18,638,559	0	0	0	**18,638,559**	1
Credits during year						2
Charged Depreciation Expense (403)	1,725,358				**1,725,358**	3
Depreciation Expense on Meters Charged to Sewer	180,770				**180,770**	4
Salvage	81,003				**81,003**	5
Additional Salvage	350				**350**	6
Total credits	**1,987,481**	**0**	**0**	**0**	**1,987,481**	7
Debits during year						8
Book Cost of Plant Retired	535,182				**535,182**	9
Cost of Removal	76,004				**76,004**	10
Total debits	**611,186**	**0**	**0**	**0**	**611,186**	11
Balance end of year (111.1)	**20,014,854**	**0**	**0**	**0**	**20,014,854**	12

Accumulated Provision for Depreciation of Utility Plant on Contributed Plant in Service (Acct. 111.2)

Depreciation Accruals (Credits) during the year (111.2):

- Report the amounts charged in the operating sections to Other Income Deductions (426).
- If sewer operations are nonregulated, do not report sewer depreciation on this schedule.
- Report the Depreciation Expense on Meters charged to sewer operations as an addition in the Water Column. If the sewer is also a regulated utility by the PSC, report an equal amount as a reduction in the Sewer column.
- Report all other accruals charged to other accounts, such as to clearing accounts.

Description (a)	Water (b)	Electric (c)	Gas (d)	Sewer (e)	Total (f)	
Balance First of Year (111.2)	10,775,289	0	0	0	**10,775,289**	1
Credits during year						2
Charged Other Income Deductions (426)	748,064				**748,064**	3
Depreciation Expense on Meters Charged to Sewer					**0**	4
Salvage	0				**0**	5
Total credits	**748,064**	**0**	**0**	**0**	**748,064**	6
Debits during year						7
Book Cost of Plant Retired	16,568				**16,568**	8
Cost of Removal	0				**0**	9
Total debits	**16,568**	**0**	**0**	**0**	**16,568**	10
Balance end of year (111.2)	**11,506,785**	**0**	**0**	**0**	**11,506,785**	11

Net Nonutility Property (Accts. 121 & 122)

- Report separately each item of property with a book cost of $5,000 or more included in account 121.
- Other items may be grouped by classes of property.
- Describe in detail any investment in sewer department carried in this account.

Description (a)	Balance First of Year (b)	Additions During Year (c)	Deductions During Year (d)	Balance End of Year (e)	
Nonregulated sewer plant	0			**0**	1
Total Nonutility Property (121)	**0**	**0**	**0**	**0**	2
Less accum. prov. depr. & amort. (122)	**0**			**0**	3
Net Nonutility Property	**0**	**0**	**0**	**0**	4

Accumulated Provision for Uncollectible Accounts-Cr. (Acct. 144)

Description (a)	Amount (b)	
Balance first of year	9,821	1
Additions		2
Provision for uncollectibles during year	820	3
Collection of accounts previously written off: Utility Customers	368	4
Collection of accounts previously written off: Others	0	5
Total Additions	**1,188**	6
Accounts Written Off		7
Accounts written off during the year: Utility Customers	4,617	8
Accounts written off during the year: Others	0	9
Total Accounts Written Off	**4,617**	10
Balance End of Year	**6,392**	11

Materials and Supplies

Account (a)	Generation (b)	Transmission (d)	Distribution (d)	Other (e)	Total End of Year (f)	Amount Prior Year (g)	
Electric Utility							1
Fuel (151)					**0**	**0**	2
Fuel stock expenses (152)					**0**	**0**	3
Plant mat. & oper. sup. (154)					**0**	**0**	4
Total Electric Utility	**0**	**0**	**0**	**0**	**0**	**0**	5

Account	Total End of Year	Amount Prior Year	
Electric utility total	**0**	**0**	1
Water utility (154)	413,799	**479,913**	2
Sewer utility (154)			3
Heating utility (154)			4
Gas utility (154)			5
Merchandise (155)			6
Other materials & supplies (156)			7
Stores expense (163)			8
Total Material and Supplies	**413,799**	**479,913**	9

Unamortized Debt Discount & Expense & Premium on Debt (Accts. 181 and 251)

Report net discount and expense or premium separately for each security issue.

Debt Issue to Which Related (a)	Written Off During Year: Amount (b)	Written Off During Year: Account Charged or Credited (c)	Balance End of Year (d)	
Unamortized debt discount & expense (181)				1
Prepaid Interest Exp - Unamortized Loss on Adv Refunding	46,743	0	409,003	2
Total	**46,743**		**409,003**	3
Unamortized premium on debt (251)				4
Unamortized Premium - Bond 2013	41,000	0	615,005	5
Unamortized Premium - Bond 2014	10,257	0	166,669	6
Unamortized Premium - Bond 2015	22,177	0	384,395	7
Unamortized Premium - Bond 2016	39,871	0	730,975	8
Unamortized Premium - Note Payable 2016	128,795	0	429,316	9
Unamortized Premium - Note Payable 2017	37,629	0	244,588	10
Total	**279,729**		**2,570,948**	11

Capital Paid in by Municipality (Acct. 200)

Report each item (when individually or when like items are combined) greater than $10,000 (class AB), $5,000 (class C) and $2,000 (class D, sewer and privates) and all other lesser amounts grouped as Miscellaneous. Describe fully using other than account titles.

Description (a)	Amount (b)	
Balance first of year	2,666,484	1
CITY OF WAUKESHA CONTRIBUTED SERVICES	3,259	2
Balance end of year	**2,669,743**	3

Bonds (Acct. 221)

- Report information required for each separate issue of bonds.
- If there is more than one interest rate for an aggregate obligation issue, average the interest rates and report one rate.
- Proceeds advanced by the municipality from sale of general obligation bonds, if repayable by utility, should be included in account 223.
- Enter interest rates in decimal form. For example, enter 6.75% as 0.0675

	Description of Issue (a)	Date of Issue (b)	Final Maturity Date (c)	Interest Rate (d)	Principal Amount End of Year (e)	
1	2008 BOND ISSUE	04/22/2008	10/01/2022	7.11%	2,090,000	*
2	2013 BOND ISSUE	05/07/2013	10/01/2032	2.76%	8,865,000	*
3	2013 SDWLP	05/22/2013	05/01/2033	1.93%	929,042	*
4	2014 BOND ISSUE	04/08/2014	10/01/2033	2.46%	4,600,000	*
5	2015 BOND ISSUE	05/12/2015	10/01/2034	2.45%	5,415,000	*
6	2016 BOND ISSUE	05/10/2016	10/01/2035	3.84%	6,280,000	*
7	**Total**				**28,179,042**	

Bonds (Acct. 221)

- Report information required for each separate issue of bonds.
- If there is more than one interest rate for an aggregate obligation issue, average the interest rates and report one rate.
- Proceeds advanced by the municipality from sale of general obligation bonds, if repayable by utility, should be included in account 223.
- Enter interest rates in decimal form. For example, enter 6.75% as 0.0675

Bonds (Acct. 221) (Page F-17)

General Footnote

A/N 221 Bonds: Dollar amount includes current portion of long-term debt.

Notes Payable & Miscellaneous Long-Term Debt

- Report each class of debt included in Accounts 223, 224 and 231.
- Proceeds of general obligation issues, if subject to repayment by the utility, should be included in Account 223.
- If there is more than one interest rate for an aggregate obligation issue, average the interest rates and report one rate.
- Enter interest rates in decimal form. For example, enter 6.75% as 0.0675

Account and Description of Obligation (a and b)	Date of Issue (c)	Final Maturity Date (d)	Interest Rate (e)	Principal Amount End of Year (f)	
Other Long-Term Debt (224)					1
A/N 230 NOTES PAYABLE TO CITY - 2016B	05/10/2016	05/01/2021	3.00%	17,400,000	2
A/N 230 NOTES PAYABLE TO CITY - 2017C	05/23/2017	05/01/2022	3.00%	9,885,000	3
Total for Account 224				**27,285,000**	4

Taxes Accrued (Acct. 236)

Description (a)	Amount (b)	
Balance first of year	1,774,813	1
Charged water department expense	1,909,613	2
Charged electric department expense		3
Charged gas department expense		4
Charged sewer department expense	34,465	5
Total accruals and other credits	**1,944,078**	6
County, state and local taxes	1,774,814	7
Social Security taxes	140,007	8
PSC Remainder Assessment	10,318	9
Gross Receipts Tax		10
DNR Water Use Fee	125	11
Total payments and other debits	**1,925,264**	12
Balance end of year	**1,793,627**	13

Interest Accrued (Acct. 237)

- Report below interest accrued on each utility obligation.
- Report customer deposits under account 235.

Description of Issue (a)	Interest Accrued Balance First of Year (b)	Interest Accrued During Year (c)	Interest Paid During Year (d)	Interest Accrued Balance End of Year (e)	
Bonds (221)	0	0	0	**0**	1
REVENUE BONDS - 2008 ISSUE	26,279	101,188	105,119	**22,348**	2
REVENUE BONDS - 2013 ISSUE	78,204	312,816	312,816	**78,204**	3
REVENUE BONDS - 2014 ISSUE	41,566	166,263	166,263	**41,566**	4
REVENUE BONDS - 2015 ISSUE	50,150	200,600	200,600	**50,150**	5
REVENUE BONDS - 2016 ISSUE	151,713	232,355	325,580	**58,488**	6
REVENUE BONDS - SDWLP 2013	3,139	18,199	18,357	**2,981**	7
Subtotal Bonds (221)	**351,051**	**1,031,421**	**1,128,735**	**253,737**	8
Advances from Municipality (223)	0	0	0	**0**	9
None				**0**	10
Subtotal Advances from Municipality (223)	**0**	**0**	**0**	**0**	11
Other Long-Term Debt (224)	0	0	0	**0**	12
None				**0**	13
Subtotal Other Long-Term Debt (224)	**0**	**0**	**0**	**0**	14
Notes Payable (231)	0	0	0	**0**	15
NOTE PAYABLE 2016	87,000	522,000	522,000	**87,000**	16
NOTE PAYABLE 2017		179,577	130,152	**49,425**	17
Subtotal Notes Payable (231)	**87,000**	**701,577**	**652,152**	**136,425**	18
Customer Deposits (235)	0	0	0	**0**	19
None				**0**	20
Subtotal Customer Deposits (235)	**0**	**0**	**0**	**0**	21
Total	**438,051**	**1,732,998**	**1,780,887**	**390,162**	22

Balance Sheet Detail - Other Accounts

Report each item (when individually or when like items are combined) greater than $10,000 (class AB), $5,000 (class C) and $2,000 (class D) and all other lesser amounts grouped as Miscellaneous. Describe fully using other than account titles.

	Description (a)	Balance End of Year (b)	
1	**Sinking Funds (125)**	0	
2	A/N 1250 DEBT PAYMENT FUND	590,665	
3	A/N 1259 BOND RESERVE FUND	475,848	
4	A/N 1287 TAX EQUIVALENT (PILOT) RESERVE	1,795,531	
5	**Total (Acct. 125)**	**2,862,044**	
6	**Depreciation Fund (126)**	0	
7	A/N 1261 IMPROVEMENT FUND	2,773,560	
8	A/N 1265 EQUIPMENT REPLACEMENT FUND	10,960,603	
9	**Total (Acct. 126)**	**13,734,163**	
10	**Cash and Working Funds (131)**	0	
11	Cash	1,985,110	
12	**Total (Acct. 131)**	**1,985,110**	
13	**Working Funds (135)**	0	
14	A/N 135 WORKING FUNDS	844	
15	**Total (Acct. 135)**	**844**	
16	**Temporary Cash Investments (136)**	0	
17	A/N 1365 LGIP - GENERAL FUND	9,272,002	
18	**Total (Acct. 136)**	**9,272,002**	
19	**Customer Accounts Receivable (142)**	0	
20	Water	3,187,989	
21	Sewer (Regulated)	1,741,041	
22	**Total (Acct. 142)**	**4,929,030**	
23	**Other Accounts Receivable (143)**	0	
24	Sewer (Non-regulated)		
25	Merchandising, jobbing and contract work		
26	**Total (Acct. 143)**	**0**	
27	**Receivables from Municipality (145)**	0	
28	A/N 1449 A/R TAX ROLL - SEWER	4,638 *	
29	A/N 1450 A/R TAX ROLL - WATER	526,464 *	
30	A/N 1452 A/R SEWER BILLING REIMBURSEMENT	24,364 *	
31	**Total (Acct. 145)**	**555,466**	
32	**Prepayments (165)**	0	

Balance Sheet Detail - Other Accounts

Report each item (when individually or when like items are combined) greater than $10,000 (class AB), $5,000 (class C) and $2,000 (class D) and all other lesser amounts grouped as Miscellaneous. Describe fully using other than account titles.

A/N 1650 PREPAID INS - PLC & WC	34,770	33
A/N 1651 PREPAID INS - LT DISABILITY	537	34
A/N 1652 PREPAID INS - HEALTH & DENTAL	57,201	35
A/N 1653 PREPAID INS - LIFE	1,843	36
A/N 1655 PREPAID OTHER	50,614	37
Total (Acct. 165)	**144,965**	38
Miscellaneous Current and Accrued Assets (174)	0	39
A/N 1745 RESTRICTED NET PENSION ASSET	(120,942)	40
Total (Acct. 174)	**(120,942)**	41
Preliminary Survey and Investigation Charges (183)	0	42
A/N 1830 FUTURE WATER SUPPLY	15,847,283	43
Total (Acct. 183)	**15,847,283**	44
Miscellaneous Deferred Debits (186)	0	45
A/N 1875 DEFERRED OUTFLOW PENSION	997,542	46
Total (Acct. 186)	**997,542**	47
Accounts Payable (232)	0	48
Accounts Payable	1,523,763	49
Total (Acct. 232)	**1,523,763**	50
Payables to Municipality (233)	0	51
A/N 2331 SEWER USER CHARGES	2,771,177 *	52
A/N 2336 SEWER CONNECTION FEES	39,360 *	53
Total (Acct. 233)	**2,810,537**	54
Customer Deposits (235)	0	55
A/N 2351 CUSTOMER DEPOSITS	188,280	56
Total (Acct. 235)	**188,280**	57
Tax Collections Payable (241)	0	58
A/N 241 TAX COLLECTIONS PAYABLE	6,086	59
Total (Acct. 241)	**6,086**	60
Miscellaneous Current and Accrued Liabilities (242)	0	61
A/N 242 MISC CURRENT & ACCRUED LIABILITIES	326,569	62
Total (Acct. 242)	**326,569**	63
Other Deferred Credits (253)	0	64
Regulatory Liability	1,146,634	65
A/N 2175 DEFERRED INFLOW PENSION	482,836	66

Balance Sheet Detail - Other Accounts

Report each item (when individually or when like items are combined) greater than $10,000 (class AB), $5,000 (class C) and $2,000 (class D) and all other lesser amounts grouped as Miscellaneous. Describe fully using other than account titles.

A/N 2530-100 REGULATORY LIABILITY - PENSION	(325,495)	67
A/N 2532 OPEB LIABILITY	3,844,074 *	68
A/N 2535 UNEARNED REVENUE - CONSERVATION	(95)	69
ROUNDING ADJUSTMENT TO TIE BALANCE SHEET	(5)	70
Total (Acct. 253)	**5,147,949**	71

Balance Sheet Detail - Other Accounts

Report each item (when individually or when like items are combined) greater than $10,000 (class AB), $5,000 (class C) and $2,000 (class D) and all other lesser amounts grouped as Miscellaneous. Describe fully using other than account titles.

Balance Sheet Detail - Other Accounts (Page F-22)

Explain amounts in Accounts 143, 145 and/or 233 in excess of $10,000. Provide a short list or detailed description, but do not use terms such as other revenues, general, miscellaneous, or repeat the account title.

A/N 1449 A/R Tax Roll – Sewer: This account represents the tax roll invoice sent to the City that remains outstanding as of 12/31/17.

A/N 1450 A/R Tax Roll – Water: This account represents the tax roll invoice sent to the City that remains outstanding as of 12/31/17.

A/N 1452 A/R Sewer Billing Reimbursement: This account represents the amount due from the City for 2017 under-billed monthly invoice for sewer billing and collection as of 12/31/17.

A/N 2331 A/P Sewer User Charges: This account represents all sewer user charges payable to the City as of 12/31/17.

A/N 2336 A/P Sewer Connection Fees: This account represents all sewer connection fees payable to the City as of 12/31/17.

General Footnote

ADJUSTMENT TO ORIGINAL FILED PSC REPORT - a/n 253 OPEB - In 2016, GASB 45 was followed for OPEB. In 2017 GASB 75 became effective. Per PSC direction, the 2017 report reflects OPEB expenses reported on a cash basis.

Return on Rate Base Computation

- The data used in calculating rate base are averages.
- Calculate those averages by summing the first-of-year and the end-of-year figures for each account and then dividing the sum by two.
- For municipal utilities, do not include contributed plant in service, property held for future use, or construction work in progress with utility plant in service. These are not rate base components.
- For private utilities, do not include property held for future use, or construction work in progress with utility plant in service. These are not rate base components.

Average Rate Base (a)	Water (b)	Electric (c)	Gas (d)	Sewer (e)	Total (f)	
Add Average						1
Utility Plant in Service (101.1)	81,290,168				**81,290,168**	2
Materials and Supplies	446,856				**446,856**	3
Less Average						4
Reserve for Depreciation (111.1)	19,326,706				**19,326,706**	5
Customer Advances for Construction					**0**	6
Regulatory Liability	1,242,187				**1,242,187**	7
Average Net Rate Base	**61,168,131**	**0**	**0**	**0**	**61,168,131**	8
Net Operating Income	2,451,890				**2,451,890**	9
Net Operating Income as a percent of Average Net Rate Base	**4.01%**	**N/A**	**N/A**	**N/A**	**4.01%**	10

Regulatory Liability - Pre-2003 Historical Accumulated Depreciation on Contributed Utility Plant (253)

Description (a)	Water (b)	Electric (c)	Gas (d)	Sewer (e)	Total (f)	
Balance First of Year	1,337,740	0	0	0	**1,337,740**	1
Credits During Year					**0**	2
None					**0**	3
Charges (Deductions)					**0**	4
Miscellaneous Amortization (425)	191,106				**191,106**	5
Balance End of Year	**1,146,634**	**0**	**0**	**0**	**1,146,634**	6

Important Changes During the Year

Report changes of any of the following types:

1. Acquisitions
None.

2. Leaseholder changes
None.

3. Extensions of service
3 developers completed improvements in 2017.

4. Estimated changes in revenues due to rate changes
An overall 9% rate increase was granted by the PSC effective 12/1/2017.

5. Obligations incurred or assumed, excluding commercial paper
1.) A long-term note payable for $9,885,000 was issued to the City of Waukesha on behalf of the Utility on 5/23/2017.

6. Formal proceedings with the Public Service Commission
1.) Docket #6240-WR-109 Application for Authority to Adjust Water Rates 2.) Docket #6240-GF-100 Great Lakes Diversion Project Application

7. Any additional matters
None.

Water Operating Revenues & Expenses

Description (a)	This Year (b)	Last Year (c)	
Operating Revenues - Sales of Water			1
Sales of Water (460-467)	10,479,782	10,713,114	2
Total Sales of Water	**10,479,782**	**10,713,114**	3
Other Operating Revenues			4
Forfeited Discounts (470)	129,899	183,404	5
Rents from Water Property (472)	228,827	271,405	6
Interdepartmental Rents (473)	0	0	7
Other Water Revenues (474)	181,857	44,459	8
Total Other Operating Revenues	**540,583**	**499,268**	9
Total Operating Revenues	**11,020,365**	**11,212,382**	10
Operation and Maintenenance Expenses			11
Source of Supply Expense (600-617)	813,467	848,237	12
Pumping Expenses (620-633)	901,026	926,498	13
Water Treatment Expenses (640-652)	426,384	434,528	14
Transmission and Distribution Expenses (660-678)	1,233,326	1,120,145	15
Customer Accounts Expenses (901-906)	211,213	169,850	16
Sales Expenses (910)	0	0	17
Administrative and General Expenses (920-932)	1,348,088	1,451,187	18
Total Operation and Maintenenance Expenses	**4,933,504**	**4,950,445**	19
Other Operating Expenses			20
Depreciation Expense (403)	1,725,358	1,613,884	21
Amortization Expense (404-407)			22
Taxes (408)	1,909,613	1,892,296	23
Total Other Operating Expenses	**3,634,971**	**3,506,180**	24
Total Operating Expenses	**8,568,475**	**8,456,625**	25
NET OPERATING INCOME	**2,451,890**	**2,755,757**	26

Water Operating Revenues - Sales of Water

- Where customer meters record cubic feet, multiply by 7.48 to obtain number of gallons.
- Report estimated gallons for unmetered sales.
- Sales to multiple dwelling buildings through a single meter serving 3 or more family units should be classified multifamily residential.
- Account 460, Unmetered Sales to General Customers - Gallons of Water Sold should not include in any way quantity of water, i.e. metered or measured by tank of pool volume. The quantity should be estimated based on size of pipe, flow, foot of frontage, etc. Bulk water sales should be Account 460 if the quantity is estimated and should be Account 461 if metered or measured by volume. Water related to construction should be a measured sale of water (Account 461).
- Report average number of individually-metered accounts (meters). The amount reported should be the average meter count. E.g. if a hospital has 5 meters, a total of 5 meters should be reported on this schedule in column b (Average No. of Customers).

Description (a)	Average No. Customer (b)	Thousand of Gallons of Water Sold (c)	Amount (d)	
Unmetered Sales to General Customers (460)				1
Residential (460.1)				2
Commercial (460.2)				3
Industrial (460.3)				4
Public Authority (460.4)				5
Multifamily Residential (460.5)				6
Irrigation (460.6)				7
Total Unmetered Sales to General Customers (460)	**0**	**0**	**0**	8
Metered Sales to General Customers (461)				9
Residential (461.1)	17,631	887,599	4,544,963	10
Commercial (461.2)	1,248	353,351	1,406,700	11
Industrial (461.3)	149	232,669	755,128	12
Public Authority (461.4)	117	72,385	268,871	13
Multifamily Residential (461.5)	1,027	383,810	1,518,571	14
Irrigation (461.6)	122	1	12	15
Total Metered Sales to General Customers (461)	**20,294**	**1,929,815**	**8,494,245**	16
Private Fire Protection Service (462)	1		189,862	17
Public Fire Protection Service (463)	1		1,795,675	18
Other Water Sales (465)				19
Sales for Resale (466)	0	0	0	20
Interdepartmental Sales (467)				21
Total Sales of Water	**20,296**	**1,929,815**	**10,479,782**	22

Sales for Resale (Acct. 466)

Use a separate line for each delivery point.

- - - THIS SCHEDULE NOT APPLICABLE TO THIS UTILITY- - -

Other Operating Revenues (Water)

- Report revenues relating to each account and fully describe each item using other than the account title.
- Report each item (when individually or when like items are combined) greater than $10,000 (class AB), $5,000 (class C) and $2,000 (class D and privates) and all other lesser amounts grouped as Miscellaneous.
- For a combined utility which also provides sewer service that is based upon water readings, report the return on net investment in meters charged to sewer department in Other Water Revenues (474).

Description (a)	Amount (b)		
Public Fire Protection Service (463)			1
Amount billed (usually per rate schedule F-1 or Fd-1)	1,795,675		2
Wholesale fire protection billed			3
Amount billed for fighting fires outside utility's service areas (usually per rate schedule F-2 or BW-1)			4
Total Public Fire Protection Service (463)	**1,795,675**		5
Forfeited Discounts (470)			6
Customer late payment charges	129,899		7
Total Forfeited Discounts (470)	**129,899**		8
Rents from Water Property (472)			9
Rent of tower for cellular antennas	228,827		10
Total Rents from Water Property (472)	**228,827**		11
Interdepartmental Rents (473)			12
None			13
Total Interdepartmental Rents (473)	**0**		14
Other Water Revenues (474)			15
Return on net investment in meters charged to sewer department	50,487		16
A/N 474 MISC SERVICE REVENUES	54,436	*	17
INTEREST CHARGES	76,934	*	18
Total Other Water Revenues (474)	**181,857**		19

Other Operating Revenues (Water)

- Report revenues relating to each account and fully describe each item using other than the account title.
- Report each item (when individually or when like items are combined) greater than $10,000 (class AB), $5,000 (class C) and $2,000 (class D and privates) and all other lesser amounts grouped as Miscellaneous.
- For a combined utility which also provides sewer service that is based upon water readings, report the return on net investment in meters charged to sewer department in Other Water Revenues (474).

Other Operating Revenues (Water) (Page W-04)

Explain all amounts in Account 474 in excess of $10,000.

a/n 474 Interest Charges: Reported as $76,933.83 because of a year-end accrual for water revenue metered, but not billed $76,200.50. Actual interest charges less the accrual were $733.33.

ADJUSTMENT TO ORIGINAL FILED PSC REPORT - Originally listed under 471 and transferred to 474 - $54,436.40 includes fees for lateral connection administration, bill status letters, special reads, reconnection/reinstallation, fire flow tests, private well permits, and vacuum breakers.

Water Operation & Maintenance Expenses

- Each expense account that has a difference between This Year and Last Year greater than 15 percent and $10,000 (class AB), 25 percent and $5,000 (class C), 30 percent and $2,000 (class D) shall be fully explained in the schedule footnotes.
- Class C and class D report all expenses in Other Expense (column c)

Description (a)	Labor Expense (b)	Other Expense (c)	Total This Year (d)	Last Year (e)	
SOURCE OF SUPPLY EXPENSES					1
Operation Supervision and Engineering (600)	2,219		2,219	5,315	2
Operation Labor and Expenses (601)			0	0	3
Purchased Water (602)			0	0	4
Miscellaneous Expenses (603)	1,972	791,992	793,964	833,876	5
Rents (604)			0	0	6
Maintenance Supervision and Engineering (610)	7,615		7,615	6,117	7
Maintenance of Structures and Improvements (611)			0	0	8
Maintenance of Collecting and Impounding Reservoirs (612)			0	0	9
Maintenance of Lake, River and Other Intakes (613)			0	0	10
Maintenance of Wells and Springs (614)		9,669	9,669	2,929	11
Maintenance of Supply Mains (616)			0	0	12
Maintenance of Miscellaneous Water Source Plant (617)			0	0	13
Total Source of Supply Expenses	**11,806**	**801,661**	**813,467**	**848,237**	14
PUMPING EXPENSES					15
Operation Supervision and Engineering (620)	29,634		29,634	33,434	16
Fuel for Power Production (621)			0	0	17
Power Production Labor and Expenses (622)			0	0	18
Fuel or Power Purchased for Pumping (623)		656,384	656,384	732,299	19
Pumping Labor and Expenses (624)	35,762		35,762	33,779	20
Expenses Transferred--Credit (625)			0	0	21
Miscellaneous Expenses (626)	46,609	23,399	70,008	55,477 *	22
Rents (627)			0	0	23
Maintenance Supervision and Engineering (630)	10,549		10,549	15,817	24
Maintenance of Structures and Improvements (631)	3,719	18,660	22,379	13,101	25
Maintenance of Power Production Equipment (632)			0	0	26
Maintenance of Pumping Equipment (633)	28,739	47,571	76,310	42,591 *	27
Total Pumping Expenses	**155,012**	**746,014**	**901,026**	**926,498**	28
WATER TREATMENT EXPENSES					29
Operation Supervision and Engineering (640)	6,096		6,096	5,319	30
Chemicals (641)		165,256	165,256	169,633	31
Operation Labor and Expenses (642)	100,764	129,092	229,856	211,591	32
Miscellaneous Expenses (643)			0	340	33
Rents (644)			0	0	34
Maintenance Supervision and Engineering (650)	3,533		3,533	10,633	35
Maintenance of Structures and Improvements (651)	591	93	684	55	36
Maintenance of Water Treatment Equipment (652)	12,443	8,516	20,959	36,957 *	37
Total Water Treatment Expenses	**123,427**	**302,957**	**426,384**	**434,528**	38
TRANSMISSION AND DISTRIBUTION EXPENSES					39
Operation Supervision and Engineering (660)	36,752		36,752	33,591	40
Storage Facilities Expenses (661)	15,421	308,925	324,346	19,878 *	41

Water Operation & Maintenance Expenses

- Each expense account that has a difference between This Year and Last Year greater than 15 percent and $10,000 (class AB), 25 percent and $5,000 (class C), 30 percent and $2,000 (class D) shall be fully explained in the schedule footnotes.
- Class C and class D report all expenses in Other Expense (column c)

Description (a)	Labor Expense (b)	Other Expense (c)	Total This Year (d)	Last Year (e)		
Transmission and Distribution Lines Expenses (662)	98,651	21,078	119,729	139,207		42
Meter Expenses (663)	61,927	2,189	64,116	64,727		43
Customer Installations Expenses (664)	5,033	44,160	49,193	52,699		44
Miscellaneous Expenses (665)	55,624	47,323	102,947	102,418		45
Rents (666)			0	0		46
Maintenance Supervision and Engineering (670)	27,738		27,738	53,438	*	47
Maintenance of Structures and Improvements (671)			0	0		48
Maintenance of Distribution Reservoirs and Standpipes (672)		58	58	517		49
Maintenance of Transmission and Distribution Mains (673)	144,412	137,416	281,828	236,378	*	50
Maintenance of Services (675)	63,511	91,720	155,231	323,130	*	51
Maintenance of Meters (676)	784	85	869	357		52
Maintenance of Hydrants (677)	34,383	12,731	47,114	60,117	*	53
Maintenance of Miscellaneous Plant (678)	20,410	2,995	23,405	33,688	*	54
Total Transmission and Distribution Expenses	**564,646**	**668,680**	**1,233,326**	**1,120,145**		55
CUSTOMER ACCOUNTS EXPENSES						56
Supervision (901)	6,487		6,487	6,802		57
Meter Reading Expenses (902)	10,326	2,536	12,862	12,303		58
Customer Records and Collection Expenses (903)	94,654	28,863	123,517	112,708		59
Uncollectible Accounts (904)		820	820	1,696		60
Miscellaneous Customer Accounts Expenses (905)	5,310		5,310	4,247		61
Customer Service and Informational Expenses (906)		62,217	62,217	32,094	*	62
Total Customer Accounts Expenses	**116,777**	**94,436**	**211,213**	**169,850**		63
SALES EXPENSES						64
Sales Expenses (910)			0	0		65
Total Sales Expenses	**0**	**0**	**0**	**0**		66
ADMINISTRATIVE AND GENERAL EXPENSES						67
Administrative and General Salaries (920)	376,617	21,098	397,715	364,471		68
Office Supplies and Expenses (921)	28,575	214,565	243,140	256,605		69
Administrative Expenses Transferred--Credit (922)	147,996	319,385	467,381	691,563	*	70
Outside Services Employed (923)		20,204	20,204	114,335	*	71
Property Insurance (924)		74,073	74,073	72,222		72
Injuries and Damages (925)		14,823	14,823	29,032	*	73
Employee Pensions and Benefits (926)		812,440	812,440	1,041,608	*	74
Regulatory Commission Expenses (928)	16,853	35,173	52,026	27,795	*	75
Duplicate Charges--Credit (929)			0	0		76
Miscellaneous General Expenses (930)	36,948	20,063	57,011	71,893	*	77
Rents (931)			0	0		78
Maintenance of General Plant (932)	49,744	94,293	144,037	164,789		79
Total Administrative and General Expenses	**360,741**	**987,347**	**1,348,088**	**1,451,187**		80
TOTAL OPERATION AND MAINTENANCE EXPENSES	**1,332,409**	**3,601,095**	**4,933,504**	**4,950,445**		81

Water Operation & Maintenance Expenses

- Each expense account that has a difference between This Year and Last Year greater than 15 percent and $10,000 (class AB), 25 percent and $5,000 (class C), 30 percent and $2,000 (class D) shall be fully explained in the schedule footnotes.
- Class C and class D report all expenses in Other Expense (column c)

Water Operation & Maintenance Expenses (Page W-05)

Explain all This Year amounts that are more than 15% and $10,000 higher or lower than the Last Year amount.

a/n 626 Pumping Miscellaneous Expense - 26% Increase - Pump structure maintenance increased in 2017. This labor will be recorded in 6310-300 in future years.

a/n 633 Maintenance of Pumping Equipment - 79% Increase - Maintenance repairs to the pump at well #10, as well as temporary pump installation and removal was booked to this account in 2017.

a/n 652 Maintenance of Water Treatment Equipment - 43% Decrease - The rebuild of Watson Marlow chemical feed equipment at multiple sites was performed in 2016.

a/n 661 Storage Facilities Expense - 1532% Increase - Davidson Tower was painted in 2017.

a/n 670 Maintenance Supervision & Engineering - 48% Decrease - A labor allocation shift of hours relating to work on the great lakes project and the retirement of an employee occurred in 2017.

a/n 673 Maintenance of Transmission & Distribution Mains - 19% Increase - Repair costs for street openings increased in 2017. When the street is opened, a larger area is required to be repaired per City policy.

a/n 675 Maintenance of Services - 52% Decrease - Additional street service tie-overs occurred in 2016 (water main replacement projects). Because the tie-over did not replace more than 50% of the street service, the tie-over is expensed.

a/n 677 Maintenance of Hydrants - 22% Decrease - Increased maintenance on hydrants was performed in 2016.

a/n 678 Maintenance of Miscellaneous Plant - 31% Decrease - SCADA maintenance activities were down, as maintenance activities were performed in other areas in 2017.

a/n 906 Customer Service & Information Expenses - 94% Increase - Per the direction of the PSC with the 2016 RC, in 2017, the sewer portion of conservation should be removed from here and offset against actual expenditures in a/n 2535.

a/n 922 Administrative Expenses Transferred - Credit - 32% Decrease - The amount of overhead was greater in 2016 because of the large number of water main replacement projects.

a/n 923 Outside Services Employed - 82% Decrease - Lobbying expenses were transferred to 4261-100 in 2017. Also, the Utility participated in a feasibility study with the City in 2016.

a/n 925 Injuries and Damages - 49% Decrease - The State Work Comp rate decreased, making our premium lower in 2017.

ADJUSTMENT TO ORIGINAL FILED PSC REPORT - a/n 926 Employee Pensions & Benefits - 22% Decrease - In 2016, GASB 45 was followed for OPEB. In 2017 GASB 75 became effective. Per PSC direction, the 2017 report reflects OPEB expenses reported on a cash basis. This change in reporting accounts for approximately $117,000 of the variance.

a/n 928 Regulatory Commission Expenses - 87% Increase - Work related to the 2016 conventional rate case increased in 2017.

a/n 930 Miscellaneous General Expenses - 21% Decrease - A bonus was issued in 2016.

General Footnote

ADJUSTMENT TO ORIGINAL FILED PSC REPORT -

Taxes (Acct. 408 - Water)

When allocation of taxes is made between departments, explain method used.

Description of Tax (a)	This Year (b)	Last Year (c)	
Property Tax Equivalent	1,793,628	1,774,814	1
Less: Local and School Tax Equivalent on Meters Charged to Sewer Department	34,465	34,826	2
Net Property Tax Equivalent	**1,759,163**	**1,739,988**	3
Social Security	140,007	140,297	4
PSC Remainder Assessment	10,318	11,886	5
DNR WATER USE FEE	125	125	6
Total Tax Expense	**1,909,613**	**1,892,296**	7

Water Property Tax Equivalent - Detail

- No property tax equivalent shall be determined for sewer utilities or town sanitary district water utilities.
- Tax rates are those issued in November (usually) of the year being reported and are available from the municipal treasurer. Report the tax rates in mills to six (6) decimal places.
- The assessment ratio is available from the municipal treasurer. Report the ratio as a decimal to six (6) places.
- The utility plant balance first of year should include the gross book values of plant in service (total of utility financed and contributed plant), property held for future use and construction work in progress.
- An "other tax rate" is included in the "Net Local and School Tax Rate Calculation" to the extent that it is local. An example is a local library tax. Fully explain the rate in the Property Tax Equivalent schedule footnotes.
- **Property Tax Equivalent - Total**
  If the municipality has authorized a lower tax equivalent amount, the authorization description and date of the authorization must be reported in the schedule footnotes. If the municipality has NOT authorized a lower amount, leave the cell blank.

COUNTY: WAUKESHA(1)

SUMMARY OF TAX RATES		
1. State Tax Rate	mills	0.000000
2. County Tax Rate	mills	1.940000
3. Local Tax Rate	mills	10.430000
4. School Tax Rate	mills	8.180000
5. Vocational School Tax Rate	mills	0.370000
6. Other Tax Rate - Local	mills	0.000000
7. Other Tax Rate - Non-Local	mills	0.000000
8. Total Tax Rate	mills	**20.920000**
9. Less: State Credit	mills	1.550000
11. Net Tax Rate	mills	**19.370000**

PROPERTY TAX EQUIVALENT CALCULATION		
12. Local Tax Rate	mills	**10.430000**
13. Combined School Tax Rate	mills	**8.550000**
14. Other Tax Rate - Local	mills	**0.000000**
15. Total Local & School Tax Rate	mills	**18.980000**
16. Total Tax Rate	mills	**20.920000**
17. Ratio of Local and School Tax to Total	dec.	**0.907266**
18. Total Tax Net of State Credit	mills	**19.370000**
19. Net Local and School Tax Rate	mills	**17.573738**
20. Utility Plant, Jan 1	$	122,241,499
21. Materials & Supplies	$	479,913
22. Subtotal	$	**122,721,412**
23. Less: Plant Outside Limits	$	6,051,824
24. Taxable Assets	$	**116,669,588**
25. Assessment Ratio	dec.	1.004200
26. Assessed Value	$	**117,159,600**
27. Net Local and School Tax Rate	mills	**17.573738**
28. Tax Equiv. Computed for Current Year	$	**2,058,933**

PROPERTY TAX EQUIVALENT - TOTAL

PROPERTY TAX EQUIVALENT CALCULATION		
1. Utility Plant, Jan 1	$	122,241,499
2. Materials & Supplies	$	479,913
3. Subtotal	$	**122,721,412**
4. Less: Plant Outside Limits	$	6,051,824
5. Taxable Assets	$	**116,669,588**
6. Assessed Value	$	**117,159,600**
7. Tax Equiv. Computed for Current Year	$	**2,058,933**
8. Tax Equivalent per 1994 PSC Report	$	840,079
9. Amount of Lower Tax Equiv. as Authorized by Municipality for Current Year (see notes)	$	1,793,628
10. Tax Equivalent for Current Year (see notes)	**$**	**1,793,628**

Water Property Tax Equivalent - Detail

- No property tax equivalent shall be determined for sewer utilities or town sanitary district water utilities.
- Tax rates are those issued in November (usually) of the year being reported and are available from the municipal treasurer. Report the tax rates in mills to six (6) decimal places.
- The assessment ratio is available from the municipal treasurer. Report the ratio as a decimal to six (6) places.
- The utility plant balance first of year should include the gross book values of plant in service (total of utility financed and contributed plant), property held for future use and construction work in progress.
- An "other tax rate" is included in the "Net Local and School Tax Rate Calculation" to the extent that it is local. An example is a local library tax. Fully explain the rate in the Property Tax Equivalent schedule footnotes.
- **Property Tax Equivalent - Total**
  If the municipality has authorized a lower tax equivalent amount, the authorization description and date of the authorization must be reported in the schedule footnotes. If the municipality has NOT authorized a lower amount, leave the cell blank.

Water Property Tax Equivalent - Detail (Page W-07)

General Footnote

The Lower Tax Equivalent for 2017 was lower because we us an equivalent calculated from the 2015 report. Due to timing and budgets, the Utility and City have agreed to this two-year cycle (reported in 2015, calculated in 2016, expensed in 2017) verified in a memo dated 2/7/12.

Water Property Tax Equivalent - Total (Page W-07)

Lower Tax Equivalent authorized by municipality is greater than or equal to zero, please explain.

The Lower Tax Equivalent for 2017 was lower because we us an equivalent calculated from the 2015 report. Due to timing and budgets, the Utility and City have agreed to this two-year cycle (reported in 2015, calculated in 2016, expensed in 2017) verified in a memo dated 2/7/12.

Water Utility Plant in Service - Plant Financed by Utility or Municipality

- All adjustments, corrections and reclassifications (including to/from plant financed by contributions) should be reported in Column (e), Adjustments.
- Explain fully as a footnote the nature of all entries reported in Column (e), Adjustments.
- For each account over $100,000 (class AB) or $50,000 (class C) or $10,000 (class D), explain in the footnotes section the dollar additions and retirements. If applicable, the footnotes should cite construction authorization, complete with PSC docket number.
- Use only the account titles listed. If the utility has subaccounts other than accounts 391.1 and 397.1, combine them into one total and detail by subaccount as a schedule footnote.

Accounts (a)	Balance First of Year (b)	Additions During Year (c)	Retirements During Year (d)	Adjustments Increase or (Decrease) (e)	Balance End of Year (f)	
INTANGIBLE PLANT						1
Organization (301)	0				**0**	2
Franchises and Consents (302)	0				**0**	3
Miscellaneous Intangible Plant (303)	0				**0**	4
Total Intangible Plant	**0**	**0**	**0**	**0**	**0**	5
SOURCE OF SUPPLY PLANT						6
Land and Land Rights (310)	204,625				**204,625**	7
Structures and Improvements (311)	0				**0**	8
Collecting and Impounding Reservoirs (312)	0				**0**	9
Lake, River and Other Intakes (313)	0				**0**	10
Wells and Springs (314)	1,507,630				**1,507,630**	11
Supply Mains (316)	1,084,144				**1,084,144**	12
Other Water Source Plant (317)	0				**0**	13
Total Source of Supply Plant	**2,796,399**	**0**	**0**	**0**	**2,796,399**	14
PUMPING PLANT						15
Land and Land Rights (320)	181,670				**181,670**	16
Structures and Improvements (321)	3,941,339	16,901	6,057		**3,952,183**	17
Other Power Production Equipment (323)	0				**0**	18
Electric Pumping Equipment (325)	3,964,845	282,526	140,602		**4,106,769** *	19
Diesel Pumping Equipment (326)	0				**0**	20
Other Pumping Equipment (328)	0				**0**	21
Total Pumping Plant	**8,087,854**	**299,427**	**146,659**	**0**	**8,240,622**	22
WATER TREATMENT PLANT						23
Land and Land Rights (330)	0				**0**	24
Structures and Improvements (331)	2,147,280				**2,147,280**	25
Sand or Other Media Filtration Equipment (332)	360,589	14,932	7,000		**368,521**	26
Membrane Filtration Equipment (333)	0				**0**	27
Other Water Treatment Equipment (334)	1,473,714				**1,473,714**	28
Total Water Treatment Plant	**3,981,583**	**14,932**	**7,000**	**0**	**3,989,515**	29
TRANSMISSION AND DISTRIBUTION PLANT						30
Land and Land Rights (340)	110,083				**110,083**	31
Structures and Improvements (341)	0				**0**	32
Distribution Reservoirs and Standpipes (342)	6,461,511				**6,461,511**	33
Transmission and Distribution Mains (343)	40,161,612	2,319,191	155,482		**42,325,321**	34
Services (345)	4,990,181	440,447	29,869		**5,400,759**	35
Meters (346)	4,176,612	228,446	123,675	(94,578)	**4,186,805** *	36
Hydrants (348)	3,045,324	263,544	23,863		**3,285,005**	37

Water Utility Plant in Service - Plant Financed by Utility or Municipality

- All adjustments, corrections and reclassifications (including to/from plant financed by contributions) should be reported in Column (e), Adjustments.
- Explain fully as a footnote the nature of all entries reported in Column (e), Adjustments.
- For each account over $100,000 (class AB) or $50,000 (class C) or $10,000 (class D), explain in the footnotes section the dollar additions and retirements. If applicable, the footnotes should cite construction authorization, complete with PSC docket number.
- Use only the account titles listed. If the utility has subaccounts other than accounts 391.1 and 397.1, combine them into one total and detail by subaccount as a schedule footnote.

Accounts (a)	Balance First of Year (b)	Additions During Year (c)	Retirements During Year (d)	Adjustments Increase or (Decrease) (e)	Balance End of Year (f)	
Other Transmission and Distribution Plant (349)	0				**0**	38
Total Transmission and Distribution Plant	**58,945,323**	**3,251,628**	**332,889**	**(94,578)**	**61,769,484**	39
GENERAL PLANT						40
Land and Land Rights (389)	69,179				**69,179**	41
Structures and Improvements (390)	2,212,626	52,346	18,049		**2,246,923**	42
Office Furniture and Equipment (391)	183,793		2,057		**181,736**	43
Computer Equipment (391.1)	541,533	38,636	3,276		**576,893**	44
Transportation Equipment (392)	921,886		18,450		**903,436**	45
Stores Equipment (393)	9,764				**9,764**	46
Tools, Shop and Garage Equipment (394)	464,593				**464,593**	47
Laboratory Equipment (395)	5,842				**5,842**	48
Power Operated Equipment (396)	589,812	73,075	4,152		**658,735**	49
Communication Equipment (397)	64,714				**64,714**	50
SCADA Equipment (397.1)	863,209	3,833	2,650		**864,392**	51
Miscellaneous Equipment (398)	0				**0**	52
Total General Plant	**5,926,951**	**167,890**	**48,634**	**0**	**6,046,207**	53
Total utility plant in service directly assignable	**79,738,110**	**3,733,877**	**535,182**	**(94,578)**	**82,842,227**	54
Common Utility Plant Allocated to Water Department	0				**0**	55
TOTAL UTILITY PLANT IN SERVICE	**79,738,110**	**3,733,877**	**535,182**	**(94,578)**	**82,842,227**	56

Water Utility Plant in Service - Plant Financed by Utility or Municipality

- All adjustments, corrections and reclassifications (including to/from plant financed by contributions) should be reported in Column (e), Adjustments.
- Explain fully as a footnote the nature of all entries reported in Column (e), Adjustments.
- For each account over $100,000 (class AB) or $50,000 (class C) or $10,000 (class D), explain in the footnotes section the dollar additions and retirements. If applicable, the footnotes should cite construction authorization, complete with PSC docket number.
- Use only the account titles listed. If the utility has subaccounts other than accounts 391.1 and 397.1, combine them into one total and detail by subaccount as a schedule footnote.

Water Utility Plant in Service - Plant Financed by Utility or Municipality (Page W-08)

Additions for Accounts OTHER than 316, 343, 345, 346 and 348 exceed $100,000, please explain. If applicable, provide construction authorization

a/n 325 Electric Pumping Equipment: Well #10 failed and had $106,787 of capital replacements in 2017. Pumping equipment upgrades were made at Well #8 and Airport Booster. A spare pump and motor were purchased for well #8.

Adjustments for one or more accounts are nonzero, please explain.

a/n 346 Transmission and Distribution Meters: Meters are held in inventory throughout the year. At year-end, they are reclassified to the asset. This entry is reversed at the beginning of the following year. The adjustment is transferring in-stock meters back to inventory for the year 2017.

Retirements for Accounts OTHER than 316, 343, 345, 346 or 348 exceed $100,000, please explain.

a/n 325 Electric Pumping Equipment: Pumping equipment was replaced at well #10, well #8, and Airport Booster.

Water Utility Plant in Service - Plant Financed by Contributions

- All adjustments, corrections and reclassifications (including to/from plant financed by contributions) should be reported in Column (e), Adjustments.
- Explain fully as a footnote the nature of all entries reported in Column (e), Adjustments.
- For each account over $100,000 (class AB) or $50,000 (class C) or $10,000 (class D), explain in the footnotes section the dollar additions and retirements. If applicable, the footnotes should cite construction authorization, complete with PSC docket number.
- Use only the account titles listed. If the utility has subaccounts other than accounts 391.1 and 397.1, combine them into one total and detail by subaccount as a schedule footnote.

Accounts (a)	Balance First of Year (b)	Additions During Year (c)	Retirements During Year (d)	Adjustments Increase or (Decrease) (e)	Balance End of Year (f)	
INTANGIBLE PLANT						1
Organization (301)	0				**0**	2
Franchises and Consents (302)	0				**0**	3
Miscellaneous Intangible Plant (303)	0				**0**	4
Total Intangible Plant	**0**	**0**	**0**	**0**	**0**	5
SOURCE OF SUPPLY PLANT						6
Land and Land Rights (310)	0				**0**	7
Structures and Improvements (311)	0				**0**	8
Collecting and Impounding Reservoirs (312)	0				**0**	9
Lake, River and Other Intakes (313)	0				**0**	10
Wells and Springs (314)	0				**0**	11
Supply Mains (316)	0				**0**	12
Other Water Source Plant (317)	0				**0**	13
Total Source of Supply Plant	**0**	**0**	**0**	**0**	**0**	14
PUMPING PLANT						15
Land and Land Rights (320)	0				**0**	16
Structures and Improvements (321)	625,300	4,670			**629,970**	17
Other Power Production Equipment (323)	0				**0**	18
Electric Pumping Equipment (325)	1,151,755				**1,151,755**	19
Diesel Pumping Equipment (326)	0				**0**	20
Other Pumping Equipment (328)	0				**0**	21
Total Pumping Plant	**1,777,055**	**4,670**	**0**	**0**	**1,781,725**	22
WATER TREATMENT PLANT						23
Land and Land Rights (330)	0				**0**	24
Structures and Improvements (331)	638,453				**638,453**	25
Sand or Other Media Filtration Equipment (332)	613,980				**613,980**	26
Membrane Filtration Equipment (333)	0				**0**	27
Other Water Treatment Equipment (334)	0				**0**	28
Total Water Treatment Plant	**1,252,433**	**0**	**0**	**0**	**1,252,433**	29
TRANSMISSION AND DISTRIBUTION PLANT						30
Land and Land Rights (340)	187,488	3,368			**190,856**	31
Structures and Improvements (341)	0				**0**	32
Distribution Reservoirs and Standpipes (342)	8,205				**8,205**	33
Transmission and Distribution Mains (343)	25,841,173	414,569			**26,255,742**	34
Services (345)	7,631,332	158,870	16,568		**7,773,634**	35
Meters (346)	0				**0**	36
Hydrants (348)	3,352,852	62,786			**3,415,638**	37

Water Utility Plant in Service - Plant Financed by Contributions

- All adjustments, corrections and reclassifications (including to/from plant financed by contributions) should be reported in Column (e), Adjustments.
- Explain fully as a footnote the nature of all entries reported in Column (e), Adjustments.
- For each account over $100,000 (class AB) or $50,000 (class C) or $10,000 (class D), explain in the footnotes section the dollar additions and retirements. If applicable, the footnotes should cite construction authorization, complete with PSC docket number.
- Use only the account titles listed. If the utility has subaccounts other than accounts 391.1 and 397.1, combine them into one total and detail by subaccount as a schedule footnote.

Accounts (a)	Balance First of Year (b)	Additions During Year (c)	Retirements During Year (d)	Adjustments Increase or (Decrease) (e)	Balance End of Year (f)	
Other Transmission and Distribution Plant (349)	0				**0**	38
Total Transmission and Distribution Plant	**37,021,050**	**639,593**	**16,568**	**0**	**37,644,075**	39
GENERAL PLANT						40
Land and Land Rights (389)	0				**0**	41
Structures and Improvements (390)	0				**0**	42
Office Furniture and Equipment (391)	0				**0**	43
Computer Equipment (391.1)	0				**0**	44
Transportation Equipment (392)	0				**0**	45
Stores Equipment (393)	0				**0**	46
Tools, Shop and Garage Equipment (394)	0				**0**	47
Laboratory Equipment (395)	0				**0**	48
Power Operated Equipment (396)	0				**0**	49
Communication Equipment (397)	0				**0**	50
SCADA Equipment (397.1)	0				**0**	51
Miscellaneous Equipment (398)	0				**0**	52
Total General Plant	**0**	**0**	**0**	**0**	**0**	53
Total utility plant in service directly assignable	**40,050,538**	**644,263**	**16,568**	**0**	**40,678,233**	54
Common Utility Plant Allocated to Water Department	0				**0**	55
TOTAL UTILITY PLANT IN SERVICE	**40,050,538**	**644,263**	**16,568**	**0**	**40,678,233**	56

Water Accumulated Provision for Depreciation - Plant Financed by Utility or Municipality

- Use only the account titles listed. If the utility has subaccounts other than accounts 391.1 and 397.1, combine them into one total and detail by subaccount in a schedule footnote.
- If more than one depreciation rate is used, report the average rate in column (c).
- Enter depreciation rates in decimal form. For example, enter 6.75% as 0.0675

Primary Plant Accounts (a)	Balance First of Year (b)	Rate % Used (c)	Accruals During Year (d)	Book Cost of Plant Retired (e)	Cost of Removal (f)	Salvage (g)	Adjustments Increase or (Decrease) (h)	Balance End of Year (i)	
SOURCE OF SUPPLY PLANT									1
Structures and Improvements (311)	0							**0**	2
Collecting and Impounding Reservoirs (312)	0							**0**	3
Lake, River and Other Intakes (313)	0							**0**	4
Wells and Springs (314)	1,329,738	2.90%	43,721					**1,373,459**	5
Supply Mains (316)	229,465	1.80%	19,515					**248,980**	6
Other Water Source Plant (317)	0							**0**	7
Total Source of Supply Plant	**1,559,203**		**63,236**	**0**	**0**	**0**	**0**	**1,622,439**	8
PUMPING PLANT									9
Structures and Improvements (321)	1,508,380	3.20%	126,296	6,057				**1,628,619**	10
Other Power Production Equipment (323)	0							**0**	11
Electric Pumping Equipment (325)	852,139	4.40%	177,576	140,602	33,319	69,271		**925,065**	12
Diesel Pumping Equipment (326)	0							**0**	13
Other Pumping Equipment (328)	0							**0**	14
Total Pumping Plant	**2,360,519**		**303,872**	**146,659**	**33,319**	**69,271**	**0**	**2,553,684**	15
WATER TREATMENT PLANT									16
Structures and Improvements (331)	779,135	3.20%	68,713					**847,848**	17
Sand or Other Media Filtration Equipment (332)	83,019	3.30%	12,030	7,000				**88,049**	18
Membrane Filtration Equipment (333)	0							**0**	19
Other Water Treatment Equipment (334)	771,673	6.00%	88,423					**860,096**	20
Total Water Treatment Plant	**1,633,827**		**169,166**	**7,000**	**0**	**0**	**0**	**1,795,993**	21
TRANSMISSION AND DISTRIBUTION PLANT									22
Structures and Improvements (341)	0							**0**	23
Distribution Reservoirs and Standpipes (342)	1,993,946	1.90%	122,769					**2,116,715**	24
Transmission and Distribution Mains (343)	3,574,616	1.30%	536,165	155,482	14,155	138		**3,941,282**	25
Services (345)	1,403,703	2.90%	150,669	29,869	5,958			**1,518,545**	26
Meters (346)	2,143,007	5.50%	229,994	123,675		11,352		**2,260,678**	27

Water Accumulated Provision for Depreciation - Plant Financed by Utility or Municipality

- Use only the account titles listed. If the utility has subaccounts other than accounts 391.1 and 397.1, combine them into one total and detail by subaccount in a schedule footnote.
- If more than one depreciation rate is used, report the average rate in column (c).
- Enter depreciation rates in decimal form. For example, enter 6.75% as 0.0675

Primary Plant Accounts (a)	Balance First of Year (b)	Rate % Used (c)	Accruals During Year (d)	Book Cost of Plant Retired (e)	Cost of Removal (f)	Salvage (g)	Adjustments Increase or (Decrease) (h)	Balance End of Year (i)	
Hydrants (348)	380,635	2.20%	69,634	23,863	19,547			**406,859**	28
Other Transmission and Distribution Plant (349)	0							**0**	29
Total Transmission and Distribution Plant	**9,495,907**		**1,109,231**	**332,889**	**39,660**	**11,490**	**0**	**10,244,079**	30
GENERAL PLANT									31
Structures and Improvements (390)	814,333	2.90%	64,663	18,049	3,000	227		**858,174**	32
Office Furniture and Equipment (391)	172,424	5.80%	10,600	2,057	25	15		**180,957**	33
Computer Equipment (391.1)	424,333	20.00%	51,237	3,276				**472,294**	34
Transportation Equipment (392)	921,886	13.30%		18,450				**903,436**	35
Stores Equipment (393)	9,764	5.80%						**9,764**	36
Tools, Shop and Garage Equipment (394)	347,993	5.80%	8,183					**356,176**	37
Laboratory Equipment (395)	5,842	5.80%						**5,842**	38
Power Operated Equipment (396)	392,851	7.50%	46,820	4,152				**435,519**	39
Communication Equipment (397)	64,714	15.00%						**64,714**	40
SCADA Equipment (397.1)	434,961	9.20%	79,470	2,650				**511,781**	41
Miscellaneous Equipment (398)	0							**0**	42
Total General Plant	**3,589,101**		**260,973**	**48,634**	**3,025**	**242**	**0**	**3,798,657**	43
Total accum. prov. directly assignable	**18,638,557**		**1,906,478**	**535,182**	**76,004**	**81,003**	**0**	**20,014,852**	44
Common Utility Plant Allocated to Water Department	0							**0**	45
TOTAL ACCUM, PROV, FOR DEPRECIATION	**18,638,557**		**1,906,478**	**535,182**	**76,004**	**81,003**	**0**	**20,014,852**	46

Water Accumulated Provision for Depreciation - Plant Financed by Contributions

- Use only the account titles listed. If the utility has subaccounts other than accounts 391.1 and 397.1, combine them into one total and detail by subaccount in a schedule footnote.
- If more than one depreciation rate is used, report the average rate in column (c).
- Enter depreciation rates in decimal form. For example, enter 6.75% as 0.0675

Primary Plant Accounts (a)	Balance First of Year (b)	Rate % Used (c)	Accruals During Year (d)	Book Cost of Plant Retired (e)	Cost of Removal (f)	Salvage (g)	Adjustments Increase or (Decrease) (h)	Balance End of Year (i)	
SOURCE OF SUPPLY PLANT									1
Structures and Improvements (311)	0							**0**	2
Collecting and Impounding Reservoirs (312)	0							**0**	3
Lake, River and Other Intakes (313)	0							**0**	4
Wells and Springs (314)	0							**0**	5
Supply Mains (316)	0							**0**	6
Other Water Source Plant (317)	0							**0**	7
Total Source of Supply Plant	**0**		**0**	**0**	**0**	**0**	**0**	**0**	8
PUMPING PLANT									9
Structures and Improvements (321)	159,049	3.20%	20,084					**179,133**	10
Other Power Production Equipment (323)	0							**0**	11
Electric Pumping Equipment (325)	379,981	4.40%	50,677					**430,658**	12
Diesel Pumping Equipment (326)	0							**0**	13
Other Pumping Equipment (328)	0							**0**	14
Total Pumping Plant	**539,030**		**70,761**	**0**	**0**	**0**	**0**	**609,791**	15
WATER TREATMENT PLANT									16
Structures and Improvements (331)	157,586	3.20%	20,431					**178,017**	17
Sand or Other Media Filtration Equipment (332)	135,236	3.30%	20,261					**155,497**	18
Membrane Filtration Equipment (333)	0							**0**	19
Other Water Treatment Equipment (334)	0	6.00%						**0**	20
Total Water Treatment Plant	**292,822**		**40,692**	**0**	**0**	**0**	**0**	**333,514**	21
TRANSMISSION AND DISTRIBUTION PLANT									22
Structures and Improvements (341)	0							**0**	23
Distribution Reservoirs and Standpipes (342)	1,324	1.90%	156					**1,480**	24
Transmission and Distribution Mains (343)	5,236,883	1.30%	338,630					**5,575,513**	25
Services (345)	3,529,482	2.90%	223,372	16,568				**3,736,286**	26
Meters (346)	0							**0**	27

Water Accumulated Provision for Depreciation - Plant Financed by Contributions

- Use only the account titles listed. If the utility has subaccounts other than accounts 391.1 and 397.1, combine them into one total and detail by subaccount in a schedule footnote.
- If more than one depreciation rate is used, report the average rate in column (c).
- Enter depreciation rates in decimal form. For example, enter 6.75% as 0.0675

Primary Plant Accounts (a)	Balance First of Year (b)	Rate % Used (c)	Accruals During Year (d)	Book Cost of Plant Retired (e)	Cost of Removal (f)	Salvage (g)	Adjustments Increase or (Decrease) (h)	Balance End of Year (i)	
Hydrants (348)	1,175,748	2.20%	74,453					**1,250,201**	28
Other Transmission and Distribution Plant (349)	0							**0**	29
Total Transmission and Distribution Plant	**9,943,437**		**636,611**	**16,568**	**0**	**0**	**0**	**10,563,480**	30
GENERAL PLANT									31
Structures and Improvements (390)	0							**0**	32
Office Furniture and Equipment (391)	0							**0**	33
Computer Equipment (391.1)	0							**0**	34
Transportation Equipment (392)	0							**0**	35
Stores Equipment (393)	0							**0**	36
Tools, Shop and Garage Equipment (394)	0							**0**	37
Laboratory Equipment (395)	0							**0**	38
Power Operated Equipment (396)	0							**0**	39
Communication Equipment (397)	0							**0**	40
SCADA Equipment (397.1)	0							**0**	41
Miscellaneous Equipment (398)	0							**0**	42
Total General Plant	**0**		**0**	**0**	**0**	**0**	**0**	**0**	43
Total accum. prov. directly assignable	**10,775,289**		**748,064**	**16,568**	**0**	**0**	**0**	**11,506,785**	44
Common Utility Plant Allocated to Water Department	0							**0**	45
TOTAL ACCUM, PROV, FOR DEPRECIATION	**10,775,289**		**748,064**	**16,568**	**0**	**0**	**0**	**11,506,785**	46

Age of Water Mains

- If asset management, capital improvement, or other infrastructure-related documents are not available, the utility should consult other potential sources of information: the year the utility was formed, year of initial build-out area, year in which new developments, subdivisions, etc. were added. This information can be used to develop estimated figures.
- If pipe diameter value is between those offered in the column, choose the diameter that is closest to the actual value.
- Report all pipe larger than 72” in diameter in the 72” category.

	Pipe Size (a)	Feet of Main pre-1900 (b)	1901-1920 (c)	1920-1940 (d)	1941-1960 (e)	1961-1970 (f)	1971-1980 (g)	1981-1990 (h)	1991-2000 (i)	2001-2010 (j)	2011-2020 (k)	Total (l)	
	2.000					184		230	8	234	8	**664**	1
	3.000								5			**5**	2
	4.000						5	9	1,428	1,670		**3,112**	3
	6.000		44,770	58,000	101,927	46,571	28,806	15,476	13,790	5,247	674	**315,261**	4
	8.000		9,746	3,330	62,839	118,394	152,234	107,329	195,676	131,513	43,267	**824,328**	5
	10.000		102	685	329	179		90	1,436	22		**2,843**	6
	12.000		2,077	3,401	25,419	56,036	57,644	36,915	79,867	88,954	52,475	**402,788**	7
	14.000				174	282	37,951			8		**38,415**	8
	16.000		467		532	11,608		9,624	21,330	28,494	14,648	**86,703**	9
	20.000				10,792	17,827	4,663	2,804	11,877	13,037	1,517	**62,517**	10
	24.000				1,103		2,096	6		4,297	16,502	**24,004**	11
	30.000										186	**186**	12
	Total	**0**	**57,162**	**65,416**	**203,115**	**251,081**	**283,399**	**172,483**	**325,417**	**273,476**	**129,277**	**1,760,826**	13

If utility is unable to provide the detailed information above, utility must provide the following:
All utility main is from this year range
(Example: 1954-1972)

Describe source of information used to develop data:
Main age was extracted from GIS.

Sources of Water Supply - Statistics

- For Raw Water Withdrawn, use metered volume of untreated water withdrawn from the source.
- For Finished Water Pumped, use metered volume of treated water entering the distribution network, adjusted for known meter errors.
- If Finished Water is not metered, use Raw Water Withdrawn and subtract estimated water used in treatment.

	Sources of Water Supply (000's gal)						Total Gallons	
	Raw Water Withdrawn		Finished Water Pumped		Purchased Water (Imported)		Entering Distribution	
Month (a)	Ground Water (b)	Surface Water (c)	Ground Water (d)	Surface Water (e)	Ground Water (f)	Surface Water (g)	System (h)	
January	173,585		173,585				**173,585**	1
February	159,807		159,807				**159,807**	2
March	176,513		176,513				**176,513**	3
April	168,807		168,807				**168,807**	4
May	180,561		180,561				**180,561**	5
June	189,748		189,748				**189,748**	6
July	191,203		191,203				**191,203**	7
August	188,424		188,424				**188,424**	8
September	184,905		184,905				**184,905**	9
October	178,559		178,559				**178,559**	10
November	164,073		164,073				**164,073**	11
December	175,391		175,391				**175,391**	12
TOTAL	**2,131,576**	**0**	**2,131,576**	**0**	**0**	**0**	**2,131,576**	13

Water Audit and Other Statistics

- Where possible, report actual metered values. If water uses are not metered, estimate values for each line based on best available information. For assistance, refer to AWWA M36 Manual – Water Audits and Loss Control Programs.
- For unbilled, unmetered gallons (line 16), include water used for system operation and maintenance and water used for non-regulated sewer utility.
- If gallons estimated due to theft, data, and billing errors is unknown, multiply net gallons entering distribution system (line 3) by .0025.

Description (a)	Value (b)
WATER AUDIT STATISTICS	
Finished Water pumped or purchased (000s)	2,131,576
Less: Gallons (000s) sold to wholesale customers (exported water)	0
Subtotal: Net gallons (000s) entering distribution system	**2,131,576**
Less: Gallons (000s) sold to retail customers - Billed Authorized Consumption	1,929,815
Gallons (000s) of Non-Revenue Water	**201,761**
Gallons (000s) of unbilled-metered (including customer use to prevent freezing)	24,336
Gallons (000s) of unbilled-unmetered (including unmetered flushing, fire protection)	1,583
Subtotal: Unbilled Authorized Consumption	**25,919**
Total Water Loss	**175,842**
Gallons (000s) estimated due to theft, data, and billing errors (default)	170572
Gallons (000s) estimated due to customer meter under-registration	1
Subtotal Apparent Losses	**170,573**
Gallons (000s) estimated due to reported leakage (mains, services, hydrants, overflows)	5,270
Gallons (000s) estimated due to unreported and background leakage	(1)
Subtotal Real Losses (leakage)	**5,269**
Non-Revenue Water as percentage of net water supplied	9%
Total Water Loss as percentage of net water supplied	8%
OTHER STATISTICS	
Maximum gallons (000s) pumped by all methods in any one day during reporting year	7,546
Date of maximum	12/16/2017
Cause of maximum	
Water main break on West Avenue.	
Minimum gallons (000s) pumped by all methods in any one day during reporting year	3,899
Date of minimum	11/24/2017
Total KWH used by the utility (including pumping, treatment facilities and other utility operations)	7,320,149
If water is purchased:	
Vendor Name	
Point of Delivery	
Source of purchased water	
Vendor Name (2)	
Point of Delivery (2)	
Source of purchased water (2)	
Vendor Name (3)	
Point of Delivery (3)	
Source of purchased water (3)	
Number of main breaks repaired this year	23
Number of service breaks repaired this year	3

Sources of Water Supply - Well Information

- Enter characteristics for each of the utility's functional wells (regardless of whether it is "in service" or not).
- Do not include abandoned wells on this schedule.
- All abandoned wells should be retired from the plant accounts and no longer listed in the utility's annual report.
- Abandoned wells should be permanently filled and sealed per Wisconsin Administrative codes Chapters NR811 and NR812.

	Utility Name/ID for Well (a)	DNR Well ID (b)	Depth (feet) (c)	Casing Diameter (inches) (d)	Yield Per Day (gallons) (e)	In Service? (f)		
1	WELL #10	BH436	2,145	28	3,893,760	Yes		
2	WELL #11	RL255	127	16	236,160	Yes		
3	WELL #12	RL256	144	16	820,800	Yes		
4	WELL #13	WK947	105	16	848,160	Yes		
5	WELL #2	EQ944	1,835	14	1	No	*	
6	WELL #3	BH429	1,995	14	1,134,720	Yes		
7	WELL #4	BH430	1,995	12	1	No	*	
8	WELL #5	BH431	2,120	19	1,598,400	Yes		
9	WELL #6	BH432	2,075	20	3,183,840	Yes		
10	WELL #7	BH433	1,650	20	930,240	Yes		
11	WELL #8	BH434	2,024	20	2,538,720	Yes		
12	WELL #9	BH435	1,725	20	1,936,800	Yes		
13					**17,121,602**			

Sources of Water Supply - Well Information

- Enter characteristics for each of the utility's functional wells (regardless of whether it is "in service" or not).
- Do not include abandoned wells on this schedule.
- All abandoned wells should be retired from the plant accounts and no longer listed in the utility's annual report.
- Abandoned wells should be permanently filled and sealed per Wisconsin Administrative codes Chapters NR811 and NR812.

Sources of Water Supply - Well Information (Page W-16)

General Footnote

Well #2 & Well #4 are not in service; therefore, column (e) should show Yield per Day (gallons) is zero. However, the program will not save the schedule as "Completed" without a value greater than zero in this column.

Sources of Water Supply - Intake Information

- - - THIS SCHEDULE NOT APPLICABLE TO THIS UTILITY- - -

Pumping & Power Equipment

	Pump						Pump Motor or Standby Engine			
Identification (a)	Location (b)	Primary Purpose (c)	Primary Destination (d)	Year Installed (e)	Type (f)	Actual Capacity (gpm) (g)	Year Installed (j)	Type (k)	Horse-power (l)	
#10	WELL #10	Primary	Reservoir	2017	Submersible	2,704	2017	Electric	700	1
#13A	WELL #13	Primary	Reservoir	2009	Vertical Turbine	589	2009	Electric	30	2
#13B	WELL #13	Booster	Distribution	2009	Centrifugal	900	2009	Electric	100	3
#13C	WELL #13	Booster	Distribution	2009	Centrifugal	900	2009	Electric	100	4
#3A	WELL #3	Primary	Distribution	2015	Submersible	788	2015	Electric	250	5
#5A	WELL #5	Primary	Reservoir	2001	Vertical Turbine	1,164	1991	Electric	250	6
#5B	WELL #5	Booster	Distribution	1956	Centrifugal	1,200	1956	Electric	75	7
#5C	WELL #5	Booster	Distribution	1996	Centrifugal	1,108	1996	Electric	40	8
#6A	WELL #6	Primary	Reservoir	2015	Submersible	2,211	2015	Electric	400	9
#6B	WELL #6	Booster	Distribution	2004	Centrifugal	2,000	2004	Electric	150	10
#6C	WELL #6	Booster	Distribution	2000	Centrifugal	2,300	2000	Electric	150	11
#7	WELL #7	Primary	Distribution	2005	Submersible	646	2005	Electric	200	12
#8A	WELL #8	Primary	Reservoir	2014	Submersible	1,763	2014	Electric	300	13
#8B	WELL #8	Booster	Distribution	2006	Centrifugal	2,600	2006	Electric	150	14
#8C	WELL #8	Booster	Distribution	2006	Centrifugal	2,600	2006	Electric	150	15
#9A	WELL #9	Primary	Reservoir	2002	Submersible	1,345	2002	Electric	350	16
#9B	WELL #9	Booster	Distribution	2009	Centrifugal	2,200	2009	Electric	150	17
#9C	WELL #9	Booster	Distribution	2009	Centrifugal	2,200	2009	Electric	150	18
#9D	WELL #9	Booster	Distribution	2009	Centrifugal	1,400	2009	Electric	50	19
AIRPORT BOOSTER-A	AIRPORT BOOSTER	Booster	Distribution	2017	Centrifugal	1,100	2017	Electric	125	20
HIGHLINE BOOSTER-A	HIGHLINE BOOSTER	Booster	Distribution	1998	Centrifugal	1,000	1998	Electric	50	21
HIGHLINE BOOSTER-B	HIGHLINE BOOSTER	Booster	Distribution	1998	Centrifugal	1,000	1998	Electric	50	22
HIGHLINE BOOSTER-C	HIGHLINE BOOSTER	Booster	Distribution	1998	Centrifugal	1,000	1998	Electric	50	23

Pumping & Power Equipment

	Pump						Pump Motor or Standby Engine			
Identification (a)	Location (b)	Primary Purpose (c)	Primary Destination (d)	Year Installed (e)	Type (f)	Actual Capacity (gpm) (g)	Year Installed (j)	Type (k)	Horse-power (l)	
HILLCREST BOOSTER-A	HILLCREST BOOSTER	Booster	Distribution	1996	Centrifugal	250	1996	Electric	15	24
HILLCREST BOOSTER-B	HILLCREST BOOSTER	Booster	Distribution	2008	Centrifugal	120	2008	Electric	15	25
HILLCREST BOOSTER-C	HILLCREST BOOSTER	Booster	Distribution	1996	Centrifugal	2,000	1996	Electric	75	26
HILLCREST BOOSTER-D	HILLCREST BOOSTER	Booster	Distribution	2016	Centrifugal	60	2016	Electric	15	27
MADISON BOOSTER-A	MADISON BOOSTER	Booster	Distribution	2007	Centrifugal	2,100	2007	Electric	125	28
MADISON BOOSTER-B	MADISON BOOSTER	Booster	Distribution	2007	Centrifugal	2,100	2007	Electric	125	29
OAKMONT BOOSTER #1	OAKMONT BOOSTER	Booster	Distribution	2004	Centrifugal	150	2004	Electric	8 *	30
OAKMONT BOOSTER #2	OAKMONT BOOSTER	Booster	Distribution	2004	Centrifugal	150	2004	Electric	8 *	31
OAKMONT BOOSTER #3	OAKMONT BOOSTER	Booster	Distribution	2004	Centrifugal	1,000	2004	Electric	40	32
OAKMONT BOOSTER #4	OAKMONT BOOSTER	Booster	Distribution	2004	Centrifugal	1,000	2004	Electric	40	33
RIVER HILLS-A	RIVER PLACE	Booster	Distribution	2004	Centrifugal	175	2004	Electric	5	34
RIVER HILLS-B	RIVER PLACE	Booster	Distribution	2007	Centrifugal	175	2007	Electric	5	35
SOUTHEAST BOOSTER	WELL #5	Booster	Distribution	1983	Centrifugal	900	1983	Electric	40	36
STARDUST BOOSTER-A	STARDUST BOOSTER	Booster	Distribution	2003	Centrifugal	700	2003	Electric	15	37
STARDUST BOOSTER-B	STARDUST BOOSTER	Booster	Distribution	2015	Centrifugal	1,000	1991	Electric	30	38
STARDUST BOOSTER-C	STARDUST BOOSTER	Booster	Distribution	2013	Centrifugal	2,000	2013	Electric	60	39
WELL #11	2578 RIVER RD	Primary	Reservoir	2013	Submersible	164	2013	Electric	40	40
WELL #12	2566 RIVER RD	Primary	Reservoir	2013	Submersible	589	2013	Electric	50	41
WOODRIDGE BOOSTER-A	WOODRIDGE BOOSTER	Booster	Distribution	2014	Centrifugal	1,000	1999	Electric	40	42
WOODRIDGE BOOSTER-B	WOODRIDGE BOOSTER	Booster	Distribution	2014	Centrifugal	1,000	1999	Electric	40	43

Pumping & Power Equipment

Pumping & Power Equipment (Page W-18)

General Footnote

Oakmont Booster #1 & #2 actual Horsepower, column (l) should be "7.5". However, the program gives an error if whole numbers are not entered, so we rounded up to "8" in order to save and complete the schedule.

Reservoirs, Standpipes and Elevated Tanks

- Enter elevation difference between highest water level in Standpipe or Elevated Tank, (or Reservoir only on an elevated site) and the water main where the connection to the storage begins branching into the distribution system.

	Facility Name (a)	Facility ID Site Code (b)	Year Constructed (c)	Type (d)	Primary Material (e)	Elevation Difference in Feet (f)	Total Capacity In Gallons (g)	
1	#13	#13	2009	Reservoir	Concrete	0	300,000	
2	#2	#2	1932	Reservoir	Concrete	0	222,000	*
3	#5	#5	1956	Reservoir	Concrete	0	2,000,000	
4	#6	#6	1960	Reservoir	Concrete	0	2,000,000	
5	#8	#8	1968	Reservoir	Concrete	0	2,000,000	
6	#9	#9	1970	Reservoir	Concrete	0	1,500,000	
7	EVERGREEN TOWER	EVERGREEN TOWER	1958	Elevated Tank	Steel	108	250,000	*
8	HILLCREST/WELL #10	#10	1978	Reservoir	Concrete	123	5,000,000	
9	HUNTER TOWER	HUNTER TOWER	1998	Elevated Tank	Steel	185	400,000	
10	MEADOWBROOK	MEADOWBROOK	1999	Elevated Tank	Steel	159	300,000	
11	MORRIS TOWER	MORRIS TOWER	1998	Elevated Tank	Steel	120	100,000	
12	NE AREA/DAVIDSON	NE AREA/DAVIDSON	1968	Elevated Tank	Steel	88	250,000	
13	NW AREA/UWW	NW AREA/UWW	2009	Elevated Tank	Concrete	99	1,000,000	

Reservoirs, Standpipes and Elevated Tanks

- Enter elevation difference between highest water level in Standpipe or Elevated Tank, (or Reservoir only on an elevated site) and the water main where the connection to the storage begins branching into the distribution system.

Reservoirs, Standpipes and Elevated Tanks (Page W-19)

General Footnote

Well #2 has been temporarily abandoned.

Evergreen Tower is out of service, but is still owned by the Utility as of 12/31/17.

Water Treatment Plant

- Provide a generic description for (a). Do not give specific address of location.
- Please select all that apply for (d) and (e). If Other is selected please explain in Notes (h).
- Please identity the point of application for each treatment plant for (g). For example, please list each well or central treatment facility served by this unit.

Unit Description (a)	Year Constructed (b)	Rated Capacity (mgd) (c)	Disinfection (d)	Additional Treatment (e)	Fluoridated (f)	Point of Application (g)	Notes (h)	
#2	1932		_ Utraviole Light _ Liquid Chlorine _ Gas Chlorine _ Ozone _ Other x None	_ Flocculation/Sedimentation _ Sand Filtraton _ Activated Carbon Filtration _ Membrance Filtration _ Iron Exchange _ Iron/Manganese _ Nutrient Removal _ Radium Removal _ Other	No		Not in service.	1
#3	1930	1	_ Utraviole Light x Liquid Chlorine _ Gas Chlorine _ Ozone _ Other _ None	_ Flocculation/Sedimentation _ Sand Filtraton _ Activated Carbon Filtration _ Membrance Filtration _ Iron Exchange _ Iron/Manganese _ Nutrient Removal x Radium Removal x Other	Yes	WELLHOUSE	Other: Silicate/corrosion control	2
#5	1956	1	_ Utraviole Light x Liquid Chlorine _ Gas Chlorine _ Ozone _ Other _ None	_ Flocculation/Sedimentation _ Sand Filtraton _ Activated Carbon Filtration _ Membrance Filtration _ Iron Exchange _ Iron/Manganese _ Nutrient Removal _ Radium Removal _ Other	No	WELLHOUSE		3
#6	1960	3	_ Utraviole Light x Liquid Chlorine _ Gas Chlorine _ Ozone _ Other _ None	_ Flocculation/Sedimentation _ Sand Filtraton _ Activated Carbon Filtration _ Membrance Filtration _ Iron Exchange _ Iron/Manganese _ Nutrient Removal _ Radium Removal _ Other	No	WELLHOUSE		4

Water Treatment Plant

- Provide a generic description for (a). Do not give specific address of location.
- Please select all that apply for (d) and (e). If Other is selected please explain in Notes (h).
- Please identity the point of application for each treatment plant for (g). For example, please list each well or central treatment facility served by this unit.

Unit Description (a)	Year Constructed (b)	Rated Capacity (mgd) (c)	Disinfection (d)	Additional Treatment (e)	Fluoridated (f)	Point of Application (g)	Notes (h)	
#8	1968	2	_ Utraviole Light x Liquid Chlorine _ Gas Chlorine _ Ozone _ Other _ None	_ Flocculation/Sedimentation _ Sand Filtraton _ Activated Carbon Filtration _ Membrance Filtration _ Iron Exchange _ Iron/Manganese _ Nutrient Removal x Radium Removal x Other	Yes	WELLHOUSE	Other: Silicate/corrosion control	5
#9	1970	2	_ Utraviole Light x Liquid Chlorine _ Gas Chlorine _ Ozone _ Other _ None	_ Flocculation/Sedimentation _ Sand Filtraton _ Activated Carbon Filtration _ Membrance Filtration _ Iron Exchange _ Iron/Manganese _ Nutrient Removal _ Radium Removal _ Other	No	WELLHOUSE		6
HILLCREST/WELL #10	1978	3	_ Utraviole Light x Liquid Chlorine _ Gas Chlorine _ Ozone _ Other _ None	_ Flocculation/Sedimentation _ Sand Filtraton _ Activated Carbon Filtration _ Membrance Filtration _ Iron Exchange _ Iron/Manganese _ Nutrient Removal x Radium Removal x Other	Yes	WELLHOUSE	Other: Silicate/corrosion control	7
WELL #11	2006	1	_ Utraviole Light x Liquid Chlorine _ Gas Chlorine _ Ozone _ Other _ None	_ Flocculation/Sedimentation _ Sand Filtraton _ Activated Carbon Filtration _ Membrance Filtration _ Iron Exchange x Iron/Manganese _ Nutrient Removal _ Radium Removal x Other	Yes	WELL 8 TMT PLANT	Other: Silicate/corrosion control	8

Water Treatment Plant

- Provide a generic description for (a). Do not give specific address of location.
- Please select all that apply for (d) and (e). If Other is selected please explain in Notes (h).
- Please identity the point of application for each treatment plant for (g). For example, please list each well or central treatment facility served by this unit.

Unit Description (a)	Year Constructed (b)	Rated Capacity (mgd) (c)	Disinfection (d)	Additional Treatment (e)	Fluoridated (f)	Point of Application (g)	Notes (h)	
WELL #12	2006	1	_ Utraviole Light x Liquid Chlorine _ Gas Chlorine _ Ozone _ Other _ None	_ Flocculation/Sedimentation _ Sand Filtraton _ Activated Carbon Filtration _ Membrance Filtration _ Iron Exchange x Iron/Manganese _ Nutrient Removal _ Radium Removal x Other	Yes	WELL 8 TMT PLANT	Other: Silicate/corrosion control	9
WELL #13	2009	1	_ Utraviole Light x Liquid Chlorine _ Gas Chlorine _ Ozone _ Other _ None	_ Flocculation/Sedimentation _ Sand Filtraton _ Activated Carbon Filtration _ Membrance Filtration _ Iron Exchange _ Iron/Manganese _ Nutrient Removal _ Radium Removal x Other	Yes	WELLHOUSE	Other: Silicate/corrosion control	10
WELL #7	1963	1	_ Utraviole Light x Liquid Chlorine _ Gas Chlorine _ Ozone _ Other _ None	_ Flocculation/Sedimentation _ Sand Filtraton _ Activated Carbon Filtration _ Membrance Filtration _ Iron Exchange _ Iron/Manganese _ Nutrient Removal _ Radium Removal x Other	No	WELLHOUSE	Other: Silicate/corrosion control	11

Water Mains

- Report mains separately by pipe material, function, diameter and either within or outside the municipal boundaries.
- Explain all reported adjustments as a schedule footnote.
- For main additions reported in column (e), as a schedule footnote:
  - Explain how the additions were financed.
  - If assessed against property owners, explain the basis of the assessments.
  - If the assessments are deferred, explain.
- Report all pipe larger than 72" in diameter in the 72" category.

			Number of Feet					
Pipe Material (a)	Main Function (b)	Diameter (inches) (c)	First of Year (d)	Added During Year (e)	Retired During Year (f)	Adjustments Increase or (Decrease) (g)	End of Year (h)	
Other Metal	Distribution	2	664				**664**	1
Ductile Iron, Lined (late 1960's to present)	Distribution	3	5				**5**	2
Ductile Iron, Lined (late 1960's to present)	Distribution	4	1,424				**1,424**	3
Ductile Iron, Lined (late 1960's to present)	Transmission	4	15				**15**	4
PVC	Distribution	4	18				**18**	5
Asbestos-Cement (Transite)	Distribution	6	453				**453**	6
Ductile Iron, Lined (late 1960's to present)	Distribution	6	92,043	255		(3)	**92,295** *	7
Ductile Iron, Lined (late 1960's to present)	Transmission	6	4				**4**	8
Galvanized	Distribution	6	24				**24**	9
Lined Cast Iron (mide-1950's to early 1970)	Distribution	6	221,920		5,665	(446)	**215,809** *	10
Other Metal	Distribution	6	19			(2)	**17** *	11
PVC	Distribution	6	6,164			(7)	**6,157** *	12
Ductile Iron, Lined (late 1960's to present)	Distribution	8	517,689	471	38	(132)	**517,990** *	13
Ductile Iron, Lined (late 1960's to present)	Supply	8	505				**505**	14
Ductile Iron, Lined (late 1960's to present)	Transmission	8	68			56	**124** *	15
HDPE	Distribution	8	3,025				**3,025**	16
Lined Cast Iron (mide-1950's to early 1970)	Distribution	8	86,718		285	(29)	**86,404** *	17
Other Metal	Distribution	8	932				**932**	18
PVC	Distribution	8	201,707	4,146	51	(6)	**205,796** *	19
Ductile Iron, Lined (late 1960's to present)	Distribution	10	236			(12)	**224** *	20
Ductile Iron, Lined (late 1960's to present)	Transmission	10	19				**19**	21
Lined Cast Iron (mide-1950's to early 1970)	Distribution	10	1,662		495	(2)	**1,165** *	22
PVC	Distribution	10	1,436				**1,436**	23
Ductile Iron, Lined (late 1960's to present)	Distribution	12	203,201	929	1,484	27	**202,673** *	24
Ductile Iron, Lined (late 1960's to present)	Supply	12	1,163				**1,163**	25
Ductile Iron, Lined (late 1960's to present)	Transmission	12	8,542			12	**8,554** *	26
HDPE	Distribution	12	258	524			**782**	27

Water Mains

- Report mains separately by pipe material, function, diameter and either within or outside the municipal boundaries.
- Explain all reported adjustments as a schedule footnote.
- For main additions reported in column (e), as a schedule footnote:
  - Explain how the additions were financed.
  - If assessed against property owners, explain the basis of the assessments.
  - If the assessments are deferred, explain.
- Report all pipe larger than 72" in diameter in the 72" category.

Pipe Material (a)	Main Function (b)	Diameter (inches) (c)	Number of Feet: First of Year (d)	Added During Year (e)	Retired During Year (f)	Adjustments Increase or (Decrease) (g)	End of Year (h)	
Lined Cast Iron (mide-1950's to early 1970)	Distribution	12	37,533		331	(6)	**37,196**	* 28
Other Metal	Distribution	12	2,864				**2,864**	29
PVC	Distribution	12	131,950	3,395	33	(9)	**135,303**	* 30
PVC	Supply	12	2				**2**	31
Ductile Iron, Lined (late 1960's to present)	Transmission	14	290				**290**	32
Lined Cast Iron (mide-1950's to early 1970)	Transmission	14	174				**174**	33
Ductile Iron, Lined (late 1960's to present)	Supply	16	3,838			(35)	**3,803**	* 34
Ductile Iron, Lined (late 1960's to present)	Transmission	16	93,097			1,684	**94,781**	* 35
HDPE	Supply	16	793				**793**	36
HDPE	Transmission	16	1,858				**1,858**	37
Lined Cast Iron (mide-1950's to early 1970)	Transmission	16	3,927			99	**4,026**	* 38
PVC	Transmission	16	4,277			6	**4,283**	* 39
Ductile Iron, Lined (late 1960's to present)	Transmission	20	32,154	300	30	1,334	**33,758**	* 40
Lined Cast Iron (mide-1950's to early 1970)	Transmission	20	13,526			(40)	**13,486**	* 41
PVC	Transmission	20	3,024			(201)	**2,823**	* 42
Ductile Iron, Lined (late 1960's to present)	Transmission	24	18,271	1,079		(7)	**19,343**	* 43
HDPE	Transmission	24	1,306				**1,306**	44
Lined Cast Iron (mide-1950's to early 1970)	Transmission	24	1,109				**1,109**	45
HDPE	Transmission	30	186				**186**	46
Total Within Municipality			**1,700,093**	**11,099**	**8,412**	**2,281**	**1,705,061**	47
Ductile Iron, Lined (late 1960's to present)	Distribution	4	1,656				**1,656**	48
Ductile Iron, Lined (late 1960's to present)	Distribution	6	501				**501**	49
Ductile Iron, Lined (late 1960's to present)	Distribution	8	6,758				**6,758**	50
HDPE	Distribution	8	52				**52**	51
PVC	Distribution	8	2,741				**2,741**	52
Ductile Iron, Lined (late 1960's to present)	Distribution	12	10,347				**10,347**	53
PVC	Distribution	12	3,904				**3,904**	54
Ductile Iron, Lined (late 1960's to present)	Transmission	16	9,862				**9,862**	55

Water Mains

- Report mains separately by pipe material, function, diameter and either within or outside the municipal boundaries.
- Explain all reported adjustments as a schedule footnote.
- For main additions reported in column (e), as a schedule footnote:
  - Explain how the additions were financed.
  - If assessed against property owners, explain the basis of the assessments.
  - If the assessments are deferred, explain.
- Report all pipe larger than 72” in diameter in the 72” category.

Pipe Material (a)	Main Function (b)	Diameter (inches) (c)	Number of Feet: First of Year (d)	Added During Year (e)	Retired During Year (f)	Adjustments Increase or (Decrease) (g)	End of Year (h)	
HDPE	Transmission	16	692				**692**	56
Lined Cast Iron (mide-1950's to early 1970)	Transmission	16	4,474				**4,474**	57
PVC	Transmission	16	82				**82**	58
Ductile Iron, Lined (late 1960's to present)	Transmission	20	9,042				**9,042**	59
Lined Cast Iron (mide-1950's to early 1970)	Transmission	20	3,407				**3,407**	60
Ductile Iron, Lined (late 1960's to present)	Distribution	24	1,717			(1,717)	**0** *	61
Ductile Iron, Lined (late 1960's to present)	Transmission	24				1,717	**1,717** *	62
HDPE	Transmission	24	529				**529**	63
Total Outside Municipality			**55,764**			**0**	**55,764**	64
Total Utility			**1,755,857**	**11,099**	**8,412**	**2,281**	**1,760,825**	65

Water Mains

- Report mains separately by pipe material, function, diameter and either within or outside the municipal boundaries.
- Explain all reported adjustments as a schedule footnote.
- For main additions reported in column (e), as a schedule footnote:
  - Explain how the additions were financed.
  - If assessed against property owners, explain the basis of the assessments.
  - If the assessments are deferred, explain.
- Report all pipe larger than 72” in diameter in the 72” category.

Water Mains (Page W-21)

Added During Year total is greater than zero, please explain financing following the criteria listed in the schedule headnotes.

The number of feet added for 2017 for Developer projects was 3,922', added at actual cost. There was also 7177' of Utility financed mains installed in 2017.

Adjustments are nonzero for one or more accounts, please explain.

Adjustments were made based on an audit between PSC records and the Utility's GIS records. These adjustments will correct the size, footage, and material of the main to actual.

General Footnote

The footage listed under "added during year" varies from that used in the conservation report because projects that are not financially closed in 2017 are not included in schedule W-21 and remain in WIP.

Utility-Owned Water Service Lines

- The utility's service line is the pipe from the main to and through the curb stop.
- Explain all reported adjustments as a schedule footnote.
- Report in column (h) the number of utility-owned service lines included in columns (g) which are temporarily shut off at the curb box or otherwise not in use at end of year.
- For service lines added during the year in column (d), as a schedule footnote:
  - Explain how the additions were financed.
  - If assessed against property owners, explain the basis of the assessments.
  - If installed by a property owner or developer, explain the basis of recording the cost of the additions, the total amount and the number of service lines recorded under this method.
  - If any were financed by application of Cz-1, provide the total amount recorded and the number of service lines recorded under this method.
- Report service lines separately by diameter and pipe materials.

	Pipe Material (a)	Diameter (inches) (b)	First of Year (c)	Added During Year (d)	Removed or Permanently Disconnected During Year (e)	Adjustments Increase or (Decrease) (f)	End of Year (g)	NOT in Use at End of Year (h)	
1	Other Metal	0.500	4				4		
2	Lead	0.750				39	39		*
3	Other Metal	0.750	1,593		46	(39)	1,508	4	*
4	Other Metal	1.000	14,065		73		13,992	23	
5	Other Plastic	1.000	728	82			810	1	
6	Other Metal	1.250	1,659		6		1,653	2	
7	Other Plastic	1.250	328	29			357	1	
8	Other Metal	1.500	518		3		515	2	
9	Other Plastic	1.500	46	49			95		
10	Lead	2.000				5	5		*
11	Other Metal	2.000	474		5	(5)	464	5	*
12	Other Plastic	2.000	43	6			49		
13	Other Metal	3.000	8				8		
14	Other Metal	4.000	145		4		141	4	
15	Other Plastic	4.000	16				16		
16	Other Metal	6.000	137	2	1		138	1	
17	Other Plastic	6.000	171	6			177	1	
18	Other Metal	8.000	98		3		95		
19	Other Plastic	8.000	27				27	3	
20	Other Plastic	10.000	1				1		
21	Other Metal	12.000	3				3		
22	Other Plastic	12.000	1				1		
23	**Utility Total**		**20,065**	**174**	**141**	**0**	**20,098**	**47**	

Utility-Owned Water Service Lines

- The utility's service line is the pipe from the main to and through the curb stop.
- Explain all reported adjustments as a schedule footnote.
- Report in column (h) the number of utility-owned service lines included in columns (g) which are temporarily shut off at the curb box or otherwise not in use at end of year.
- For service lines added during the year in column (d), as a schedule footnote:
  - Explain how the additions were financed.
  - If assessed against property owners, explain the basis of the assessments.
  - If installed by a property owner or developer, explain the basis of recording the cost of the additions, the total amount and the number of service lines recorded under this method.
  - If any were financed by application of Cz-1, provide the total amount recorded and the number of service lines recorded under this method.
- Report service lines separately by diameter and pipe materials.

Utility-Owned Water Service Lines (Page W-22)

Additions are greater than zero, please explain financing by following criteria listed in the schedule headnotes.

In 2017, 54 services were Developer/Contractor installed and are accounted for based on actual cost. 120 services were replaced or installed and funded by the Utility. Services installed by a home owner are contracted by that home owner.

Adjustments are nonzero for one or more accounts, please explain.

ADJUSTMENT TO ORIGINAL FILED PSC REPORT - The Utility has identified that several services within the system contain lead goosenecks that connect the iron service to the water main. These services have been removed from the "other metal" category and have been recategorized as "lead" on the schedule. WWU plans to replace all remaining lead gooseneck services by 2023.

Meters

- Include in Columns (b-f) meters in stock as well as those in service.
- Report in Column (c) all meters purchased during the year and in Column (d) all meters junked, sold or otherwise permanently retired during the year.
- Use Column (e) to show correction to previously reported meter count because of inventory or property record corrections
- Totals by size in Column (f) should equal same size totals in Column (s).
- Explain all reported adjustments as schedule footnote.
- Do not include station meters in the meter inventory used to complete these tables.

Number of Utility-Owned Meters

Classification of All Meters at End of Year by Customers

Size of Meter	First of Year	Added During Year	Retired During Year	Adjust. Increase or Decrease	End of Year	Tested During Year	Residential	Commercial	Industrial	Public Authority	Multifamily Residential	Irrigation	Wholesale	Inter-Departmental	Utility Use	Deduct Meters	In Stock	Total		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(0)	(p)	(q)	(r)	(s)		
5/8	17,297	330	218	(4)	17,405	105	16,296	504	44	7	36	112					406	**17,405**	*	1
3/4	1,713	24	39		1,698	13	1,280	227	16	3	116	1					55	**1,698**		2
1	967		19	1	949	0	52	249	32	29	546	4					37	**949**	*	3
1 1/2	367	35	26	3	379	61		121	14	13	197	1					33	**379**	*	4
2	379	40	44	(1)	374	88		135	31	52	119	4					33	**374**	*	5
3	45	2	1		46	38		15	3	9	13						6	**46**		6
4	19		1		18	5		3	6	3	1						5	**18**		7
6	10		0		10	9		2	6	1							1	**10**	*	8
Total	**20,797**	**431**	**348**	**(1)**	**20,879**	**319**	**17,628**	**1,256**	**152**	**117**	**1,028**	**122**					**576**	**20,879**		9

Meters

- Include in Columns (b-f) meters in stock as well as those in service.
- Report in Column (c) all meters purchased during the year and in Column (d) all meters junked, sold or otherwise permanently retired during the year.
- Use Column (e) to show correction to previously reported meter count because of inventory or property record corrections
- Totals by size in Column (f) should equal same size totals in Column (s).
- Explain all reported adjustments as schedule footnote.
- Do not include station meters in the meter inventory used to complete these tables.

1. Indicate your residential meter replacement schedule:

Meters tested once every 10 years and replaced as needed

X All meters replaced within 20 years of installation

Other schedule as approved by PSC

2. Indicate the method(s) used to read customer meters

Manually - remote register

Manually - inside the premises

X Radio Frequency - Drive or walk-by technology

Radio Frequency - fixed network or other automatic infrastructure (AMI)

Other

Meters

- Include in Columns (b-f) meters in stock as well as those in service.
- Report in Column (c) all meters purchased during the year and in Column (d) all meters junked, sold or otherwise permanently retired during the year.
- Use Column (e) to show correction to previously reported meter count because of inventory or property record corrections
- Totals by size in Column (f) should equal same size totals in Column (s).
- Explain all reported adjustments as schedule footnote.
- Do not include station meters in the meter inventory used to complete these tables.

Meters (Page W-23)

Adjustments are nonzero for one or more meter sizes, please explain.

Adjustments are a result of the reconciliation between the end of the year report and a physical inventory of all in-stock meters.

General Footnote

We have 10 6" meters, but only 9 were tested in 2017. The 10th meter is in stock, which is why it was not tested.

Hydrants and Distribution System Valves

- Distinguish between fire and flushing hydrants by lead size.
  - Fire hydrants normally have a lead size of 6 inches or greater.
  - Record as a flushing hydrant where the lead size is less than 6 inches or if pressure is inadequate to provide fire flow.
- Explain all reported adjustments in the schedule footnotes.
- Report fire hydrants as within or outside the municipal boundaries.

Hydrant Type (a)	Number In Service First of Year (b)	Added During Year (c)	Removed During Year (d)	Adjustments Increase or (Decrease) (e)	Number In Service End of Year (f)	
Fire - Outside Municipality	**74**				**74**	1
Fire - Within Municipality	**3,390**	45	30	(2)	**3,403** *	2
Total Fire Hydrants	**3,464**	**45**	**30**	**(2)**	**3,477**	3
Flushing Hydrants	**0**				**0**	4

NR810.13(2)(a) recommends that a schedule shall be adopted and followed for operating each system valve and hydrant at least once each two years. Please provide the number operated during the year.

Number of Hydrants operated during year	2,088
Number of Distribution System Valves end of year	8,222
Number of Distribution Valves operated during Year	2,495

Hydrants and Distribution System Valves

- Distinguish between fire and flushing hydrants by lead size.
  - Fire hydrants normally have a lead size of 6 inches or greater.
  - Record as a flushing hydrant where the lead size is less than 6 inches or if pressure is inadequate to provide fire flow.
- Explain all reported adjustments in the schedule footnotes.
- Report fire hydrants as within or outside the municipal boundaries.

Hydrants and Distribution System Valves (Page W-25)

Adjustments are nonzero for one or more accounts, please explain.

An adjustment has been made to hydrants based on an audit between PSC records and the Utility's GIS records. The adjustment will correct the number of hydrants listed to actual.

General Footnote

WWU continues to test and operate distribution valves and hydrants following the DNR code NR810.

List of All Station and Wholesale Meters

- Definition of Station Meter is any meter in service not used to measure customer consumption.
- Definition of Wholesale Meter is any meter used to measure sales to other utilities.
- Retail customer meters should not be included in this inventory.

Purpose (a)	Meter Size (inches) (b)	Location or Description (c)	Type (d)	Date of Last Meter Test (e)	
Station Meter	6	Well #11	Magnetic	03/23/2017	1
Station Meter	8	Well #12	Magnetic	03/23/2017	2
Station Meter	8	Well #3	Magnetic	03/23/2017	3
Station Meter	8	Well #7	Magnetic	03/23/2017	4
Station Meter	12	Well #13-1	Magnetic	03/23/2017	5
Station Meter	12	Well #13-2	Magnetic	03/23/2017	6
Station Meter	12	Well #5	Magnetic	03/23/2017	7
Station Meter	12	Well #6	Magnetic	03/23/2017	8
Station Meter	12	Well #8-1	Magnetic	03/23/2017	9
Station Meter	12	Well #8-2	Magnetic	03/23/2017	10
Station Meter	16	Well #10	Magnetic	03/23/2017	11
Station Meter	16	Well #9	Magnetic	03/23/2017	12

Water Conservation Programs

- List all water conservation-related expenditures for the reporting year. Include administrative costs, customer outreach and education, other program costs, and payments for rebates and other customer incentives.
- If the Commission has approved conservation program expenses, these should be charged to Account 186. Otherwise, these expenses are reported in Account 906 on Schedule W-05 (Account 691 for class D utilities).

Item Description (a)	Expenditures (b)	Number of Rebates (c)	Water Savings Gallons (d)	
Administrative and General Expenses				1
Program Administration	17,873	0	0	2
Customer Outreach & Education	22,030	0	0	3
Other Program Costs	16,765	0	0	4
Total Administrative and General Expenses	**56,668**	**0**	**0**	5
Customer Incentives				6
Residential Toilets	9,924	101	935,593	7
Multifamily/Commercial Toilets	22,900	229	2,629,996	8
Faucets	0	0	0	9
Showerheads	265	11	22,685	10
Clothes Washers	0	0	0	11
Dishwashers	0	0	0	12
Smart Irrigation Controller	0	0	0	13
Commercial Pre-Rinse Spray Valves	0	0	0	14
Cost Sharing Projects (Nonresidential Customers)	1,795	1	990,293	15
Customer Water Audits	0	0	0	16
Other Incentives	760	20	148,216 *	17
Total Customer Incentives	**35,644**	**362**	**4,726,783**	18
TOTAL CONSERVATION	**92,312**	**362**	**4,726,783**	19

Water Conservation Programs

- List all water conservation-related expenditures for the reporting year. Include administrative costs, customer outreach and education, other program costs, and payments for rebates and other customer incentives.
- If the Commission has approved conservation program expenses, these should be charged to Account 186. Otherwise, these expenses are reported in Account 906 on Schedule W-05 (Account 691 for class D utilities).

Water Conservation Programs (Page W-27)

Expenditures for Other Incentives are non-zero, please explain.

Twelve Industrial toilets were replaced in 2017 for a total of $600.00 reimbursed and water savings of 137,816 gallons. Eight rain barrel incentives were also reimbursed for a total of $160.00 with water savings of 10,400 gallons.

General Footnote

The full conservation report submitted separately to Denise Schmidt via email.

Water Customers Served

- List the number of customer accounts in each municipality for which your utility provides retail general service. Do not include wholesale customers or fire protection accounts.
- Per Wisconsin state statute, a city, village, town or sanitary district owning water plant or equipment may serve customers outside its corporate limits, including adjoining municipalities. For purposes of this schedule, customers located “Within Muni Boundary” refers to those located inside the jurisdiction that owns the water utility.

Municipality (a)	Customers End of Year (b)	
Pewaukee (City)	49	1
Waukesha (City) **	20,118	2
Waukesha (Town)	127	3
Total - Waukesha County	**20,294**	4
Total - Customers Served	**20,294**	5
Total - Outside Muni Boundary	**176**	6
Total - Within Muni Boundary **	**20,118**	7

*** = Within municipal boundary*

Privately-Owned Water Service Lines

- The privately owned service line is the pipe from the curb stop to the meter.
- Explain all reported adjustments in columns(f) as a schedule footnote.
- Report in column (h) the number of privately-owned service lines included in columns (g) which are temporarily shut off at the curb box or otherwise not in use at end of year.
- Separate reporting of service lines by diameter and pipe material.

Pipe Material (a)	Diameter (inches) (b)	First of Year (c)	Added During Year (d)	Removed or Permanently Disconnected During Year (e)	Adjustments Increase or (Decrease) (f)	End of Year (g)	NOT in Use at End of Year (h)		
Other Metal	0.500				4	4		*	1
Other Metal	0.750				1,547	1,547	4	*	2
Other Metal	1.000				13,992	13,992	23	*	3
Other Plastic	1.000				810	810	1	*	4
Other Metal	1.250				1,653	1,653	2	*	5
Other Plastic	1.250				357	357	1	*	6
Other Metal	1.500				515	515	2	*	7
Other Plastic	1.500				95	95		*	8
Other Metal	2.000				469	469	5	*	9
Other Plastic	2.000				49	49		*	10
Other Metal	3.000				8	8		*	11
Other Metal	4.000				141	141	4	*	12
Other Plastic	4.000				16	16		*	13
Other Metal	6.000				138	138	1	*	14
Other Plastic	6.000				177	177	1	*	15
Other Metal	8.000				95	95		*	16
Other Plastic	8.000				27	27	3	*	17
Other Plastic	10.000				1	1		*	18
Other Metal	12.000				3	3		*	19
Other Plastic	12.000				1	1		*	20
Utility Total					**20,098**	**20,098**	**47**		21

Privately-Owned Water Service Lines

- The privately owned service line is the pipe from the curb stop to the meter.
- Explain all reported adjustments in columns(f) as a schedule footnote.
- Report in column (h) the number of privately-owned service lines included in columns (g) which are temporarily shut off at the curb box or otherwise not in use at end of year.
- Separate reporting of service lines by diameter and pipe material.

Privately-Owned Water Service Lines (Page W-29)

Adjustments are nonzero for one or more accounts, please explain.

All property services have been added to the schedule in 2017 as an adjustment.

General Footnote

The information used for this report is based primarily on the data the Utility has for street services. For future annual reports, the Utility plans to work with its GIS system and other known information to make any appropriate updates to the quantities of privately-owned service lines connected to the Utility's infrastructure.

Also, the Utility is not aware of any privately-owned lead services in the system.

PUBLIC SERVICE COMMISSION OF WISCONSIN
REPORT ON WATER CONSERVATION PROGRAMS

Utility Name:	Waukesha Water Utility - 6240
Report Date:	04/01/2018
Report Period:	01/01/2017 – 12/31/2017
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.

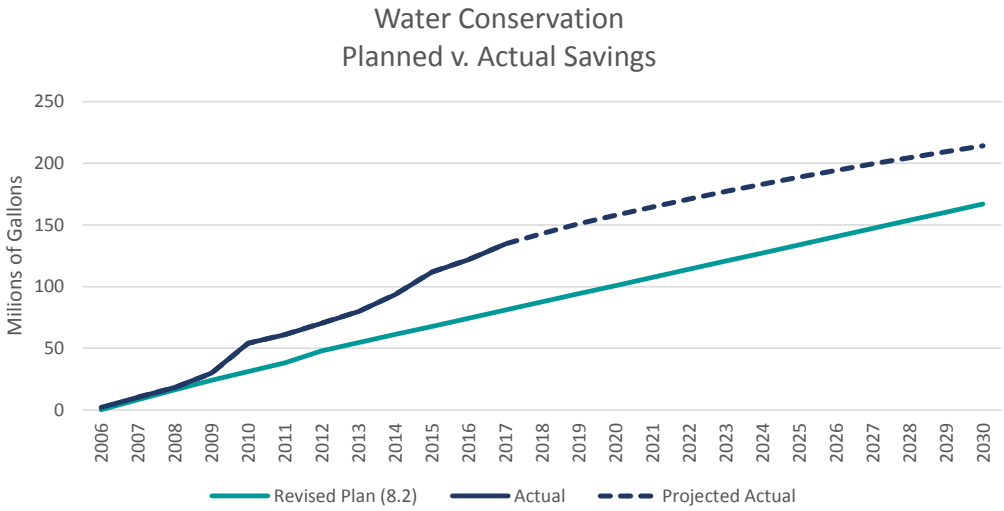
Section	Topic	Page
I	EXECUTIVE SUMMARY	2
II	ANNUAL BUDGET AND EXPENSES	3
III	INCENTIVE PROGRAMS	4
IV	EFFECTS OF WATER RATES STRUCTURE	24
V	CONSERVATION - EFFICIENCY MEASURES - NON RESIDENTIAL	29
VI	EDUCATION PROGRAMS AND PARTNERSHIPS	73
VII	WATER LOSSES AND ACCOUNTED FOR WATER	129
VIII	CONCLUSION	132

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 11%.

Waukesha is exceeding its conservation goals. The 2012 Conservation Plan projected a cumulative savings of 98.6 million gallons by 2017. As shown in the graph below, the Utility is ahead of it's conservation goals. If Waukesha stays on track, the Utility will exceed savings of 0.8 million gallons per day by 2050.



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

II. ANNUAL BUDGET AND EXPENDITURES

Per Docket 6240-WR-107 the PSC determined that a "reasonable level of conservation costs recoverable in rates for the test year (2012) is $62,271." Subsequently, with Docket 6240-WR-109, the PSC agreed that the same level of costs was reasonable with a revised test year of 2017.

The actual costs since 2012 are as follows:

	Actual					
	2017	2016	2015	2014	2013	2012
Revenue						
Rates	$ 62,271	$ 62,271	$ 62,271	$ 62,271	$ 62,271	$ 62,271
Sewer Reimbursement	30,000	30,123	41,354	30,484	23,028	15,052
	92,271	92,394	103,625	92,755	85,299	77,323
Expenses						
Program Administration	17,873	15,205	14,493	9,831	14,474	5,736
Customer Outreach and Education	22,030	22,440	20,216	15,681	13,865	24,117
Other Program Costs	1,544	859	-	3,829	27,445	67,469
Leak Surveys	15,197	10,206	10,290			
Toilet Rebates	32,824	17,652	11,225	7,976	12,815	5,596
Grants & Incentives	2,819	4,298	36,773	29,626	-	
	92,287	70,660	92,998	66,943	68,599	102,918
Excess(Deficit)	$ (16)	$ 21,735	$ 10,627	$ 25,812	$ 16,700	$ (25,595)

Program revenue remained consistent from 2016 to 2017. The PSC approved a rate increase on November 1, 2017 and along with the afformentioned conservation costs recoverable by water rates, the PSC capped the funding charged to the City's Sewer Department at $30,000.

It is important to note that the Utility spent all of the money generated through water rates, $62,271, as well as the amount funded by the City's Sewer Department. With 2017 being the first year in which the Sewer Department's funding was capped, the average excess generated by the program since 2012 has decreased from $9,855 per year in 2016 to $8,210 per year in 2017.

The significant change between 2016 and 2017 was an increase in leak survey work and a sharp increase in toilet rebates. The Utility remained focused on replacing inefficient toilets as illustrated with 101 residential and 229 multifamily/commercial toilets rebates issued in 2017.

III. INCENTIVE PROGRAMS

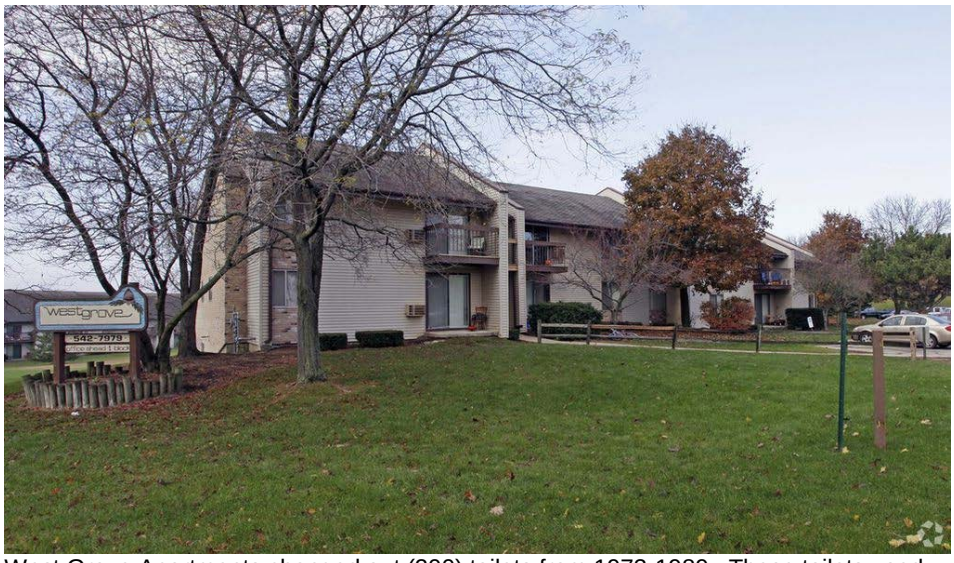
The Utility has five incentive programs:

1. Toilet Rebate Program
2. Shower Head Rebate Program
3. Rain Barrel Rebate Program (New in 2017)
4. A Pilot Rebate Program for Irrigation Controllers
5. Grants for Innovative Site Specific Water Savings Measures

1. Toilet Rebate Program

Waukesha Water Utility's High-Efficiency, 1.28 gpf, 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 2013, the Utility began to target a younger audience. A toilet leak/rebate effort was launched as part of AWE's Fix a Leak initiative.
- In 2014, the Utility continued that effort. Fewer grade school classes chose to participate than in the prior year.
- 2015, the Utility continued the Fix a Leak Week school activity but, even with friendly reminders, had only one school participate. However, on a positive note, the Utility experienced a 41% increase over the prior year with 112 rebates. This includes a multi-family apartment building changing out their old 1973 toilets, which used 5 gallons per flush (gpf), to the high-efficiency 1.28 gpf per flush toilets.
- 2016, the Utility had a 66% increase in toilet rebates from the previous year. The 186 rebates included two multi-family apartment buildings, as shown on the next page. The Utility also conducted a Fix a Leak Week student activity with Rivers Crossing's Homeschoolers, where students tested their toilets for leaks (for more information on the student activity, please refer to the Education section of this report).
- In 2017, there was an 84% increase in toilet rebates from the previous year. The 342 toilet rebates include 3 multi-family apartment buildings, as shown below; and one industrial company, as mentioned in the Grants/Business Incentives section.

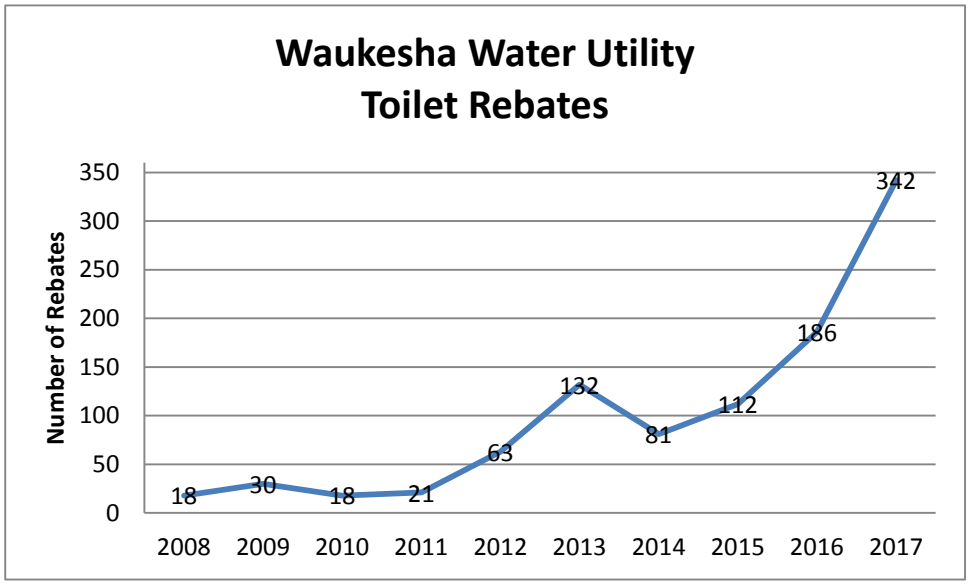


West Grove Apartments changed out (200) toilets from 1973-1989. These toilets used 3.5 – 5.5 gallons per flush (gpf). They replaced those toilets with WaterSense's, high-efficiency, Stealth Toilets that use 0.8 gpf.

Hickory Hill Apartments changed out (23) 5 gpf toilets from 1969 & 1970 with 1.28 gpf toilets. *The landlord said, "had there not been a rebate, this toilet changeout project would not have taken place."*

The 10 unit Pines Apartment changed out (6) 5 gpf toilets from 1967 with 1.28 gpf toilets.

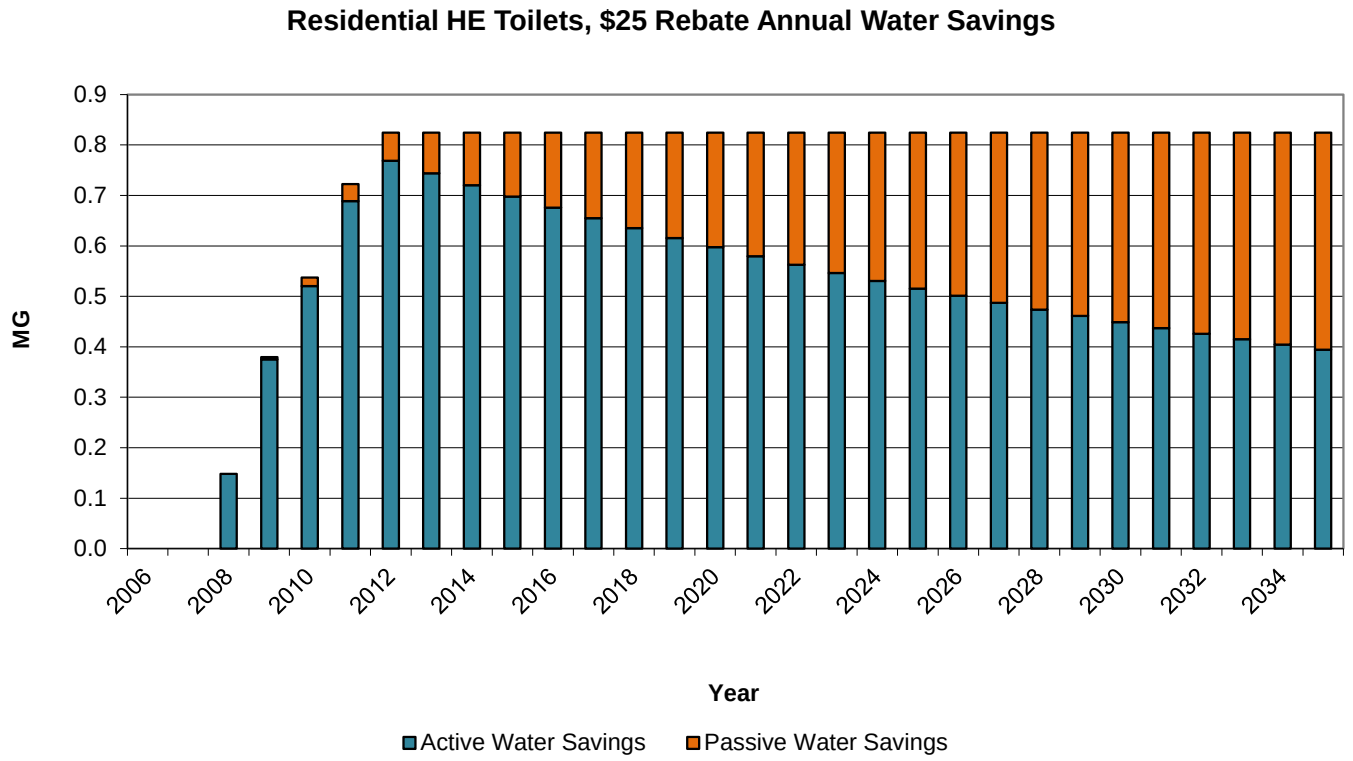
Historically, the following rebates have been awarded:



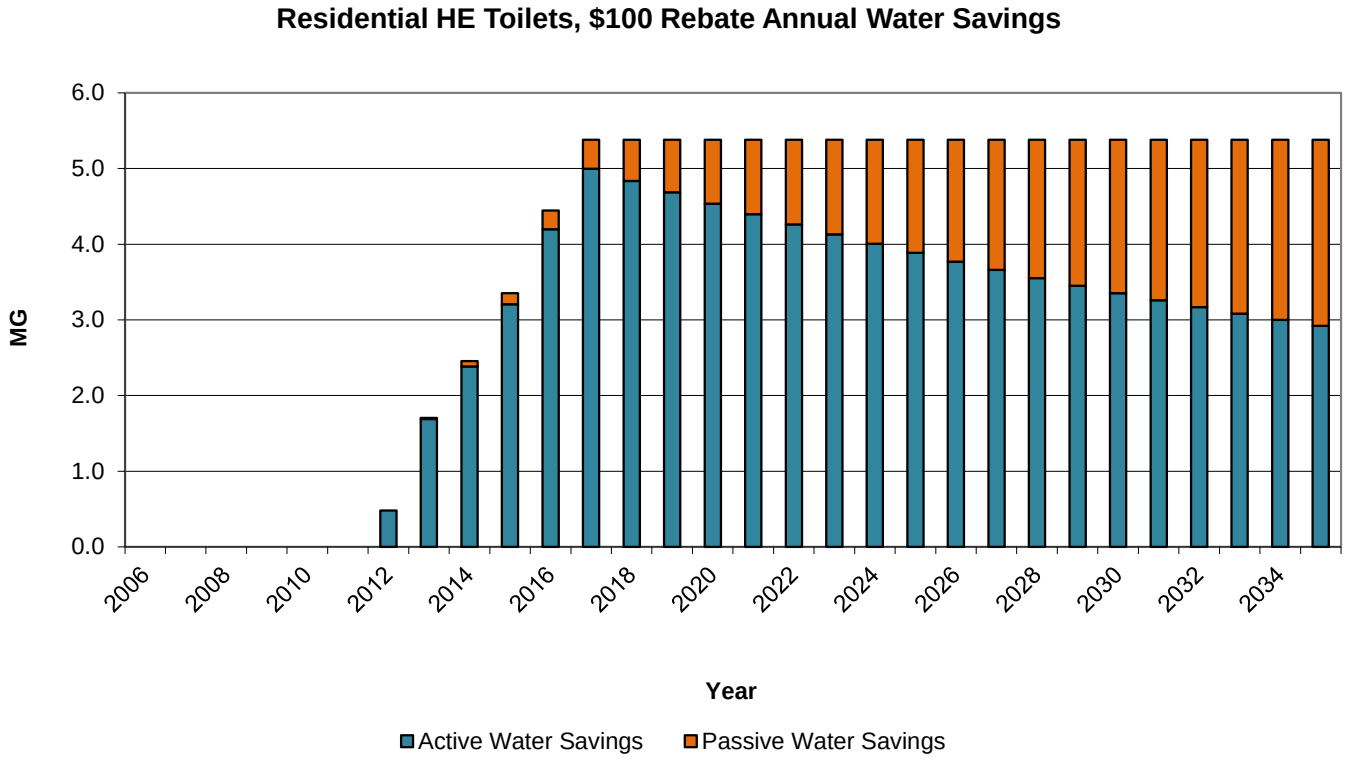
Using the Alliance for Water Efficiency (AWE) Conservation Tracking Tool, the annual cost effectiveness of the program is demonstrated below.

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	651.72	70,297.85	1,830.04	197,396.84	109,992.24	87,404.60	2.81
Commercial	Commercial HE Toilet, Large MF $100 Rebate	346.68	12,857.36	1,897.30	70,366.12	39,223.18	31,142.94	5.47
Industrial	CII Tank-Type HE Toilet, $50 Rebate	147.91	475.55	1,948.21	6,263.97	3,492.59	2,771.37	13.17

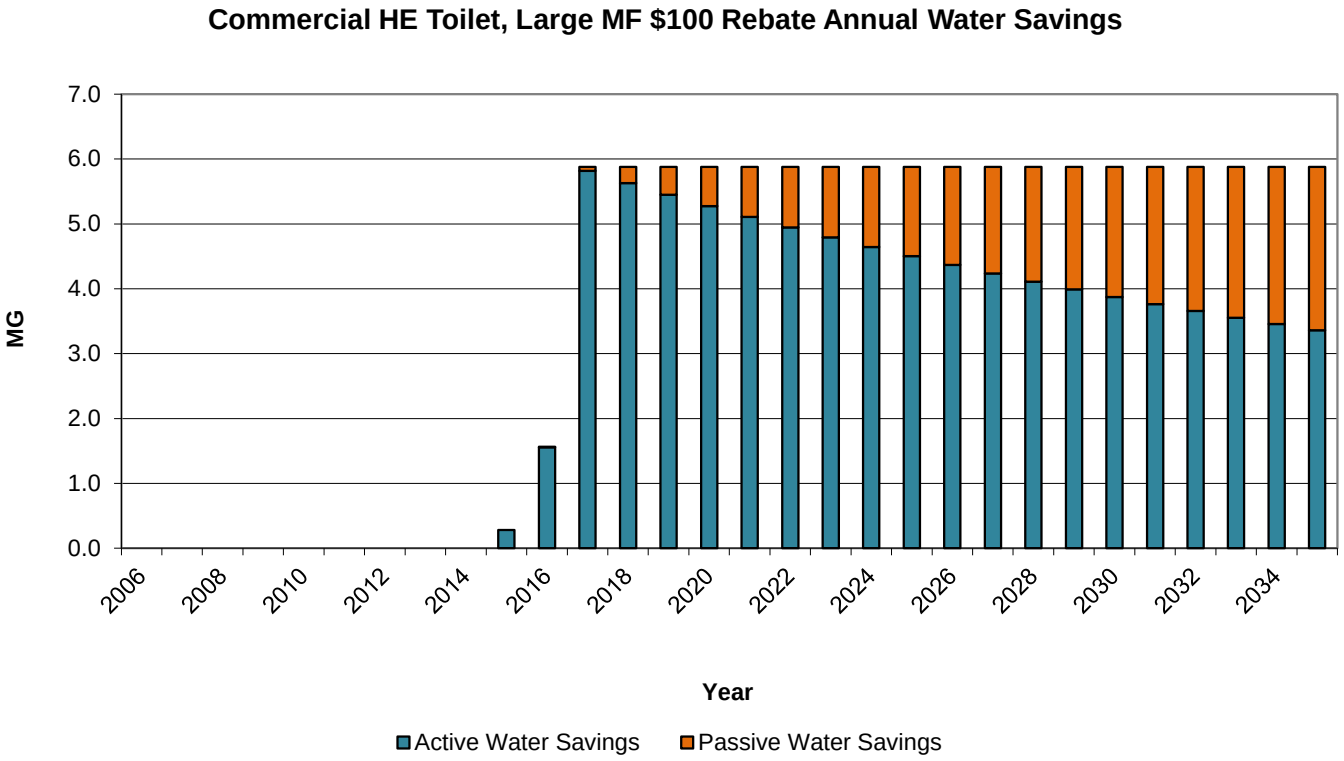
The projected water savings through 2035 is demonstrated by the four graphs below. The first relates to water savings from the $25 residential rebates.



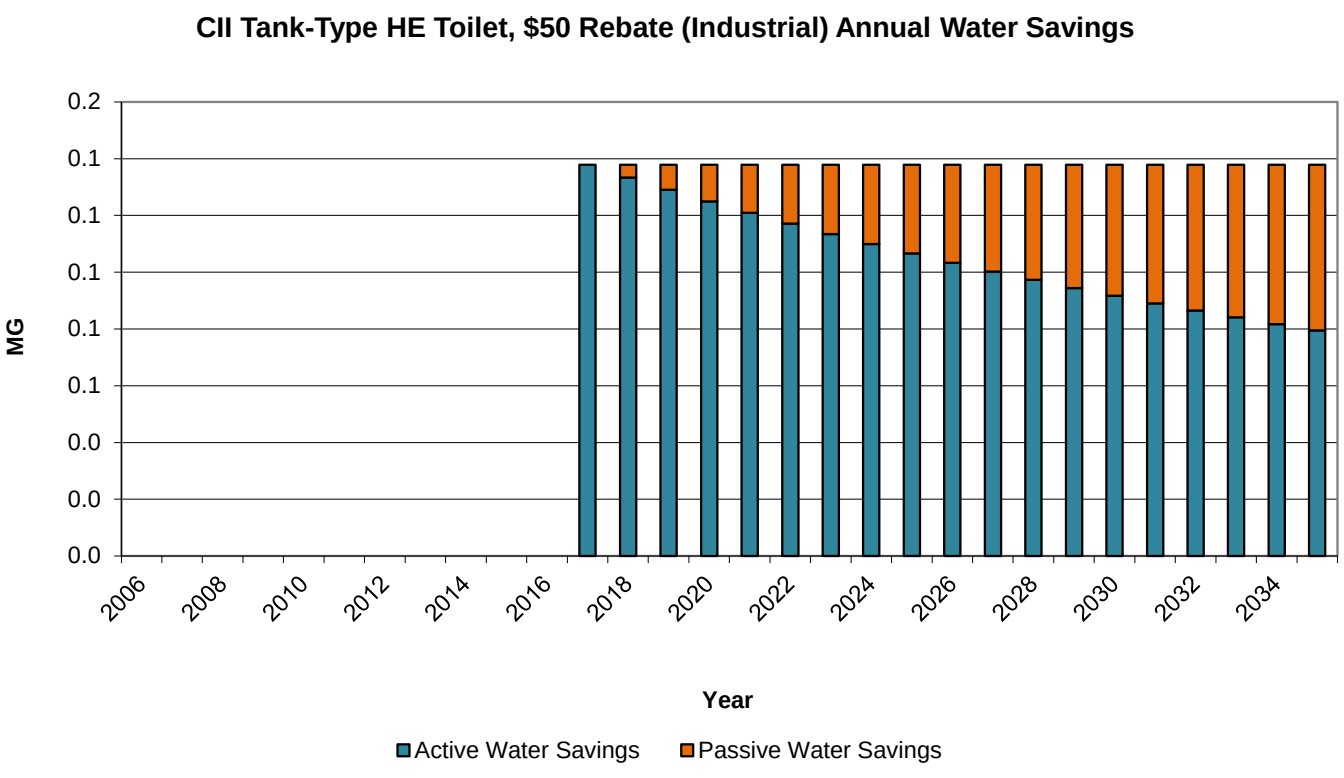
The second graph relates to water saved by the $100 residential rebates.



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



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



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 2016, there were zero rebates. In 2017, there were 11 rebates.

The toilet & showerhead rebate application is shown on the following two pages. The press release, ad on our website, and the ad in Waukesha's Activity Guide, is shown under 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

HIGH-EFFICIENCY TOILET & SHOWER HEAD REBATES

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

Customer Eligibility/Program Rules:

1. Rebates are available on first-come, first-served basis until funds are exhausted.
2. The 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 proof of installation is required and needs to be attached to the application in order to receive the rebate.
10. Owners who occupy the dwelling (live full-time at the dwelling) may either use a licensed plumber to install the toilet/fixture or do it themselves. Owners who do not occupy the dwelling (i.e. landlords) must use a licensed plumber to install the toilet/fixture.
11. 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.
12. The Utility will withhold the rebate until all conditions are met.
13. Rebates are not available for the costs of installation.
14. Old toilets/showerheads cannot be reused.
15. Submit the application materials to the Waukesha Water Utility (address listed above).

Toilet & Shower Head Rebate Application Front Side

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

TOILET & SHOWER HEAD REBATE FORM

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

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

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

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

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

Or

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

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

New Toilet/Shower Head Information:

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

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

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

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

---

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

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

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

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

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

_____ _____
Property Owner Signature Date

Toilet & Shower Head Rebate Application Back Side

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 over 1 indicates that the program currently costs as much as the cost of the water saved.

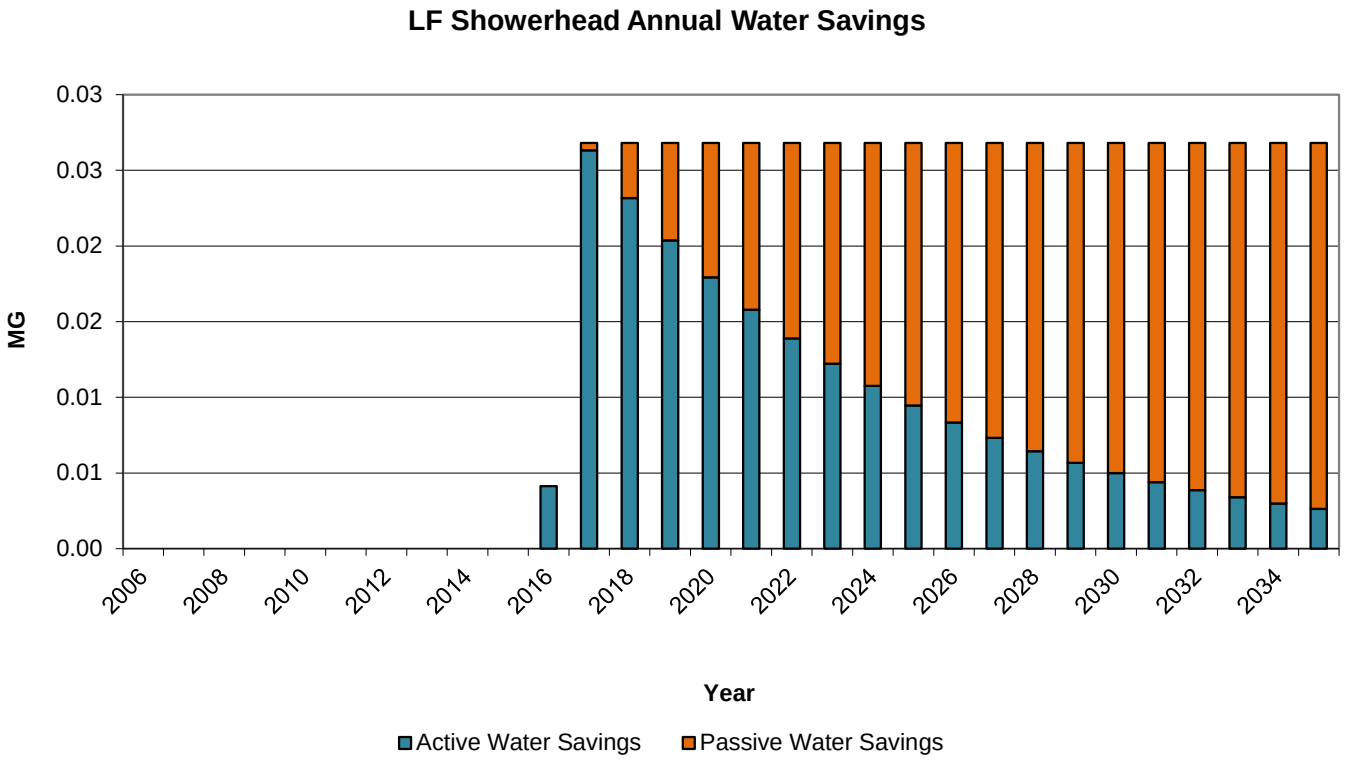
The Utility undertook this program because it was part of the 2012 Conservation Plan. The 2012 plan indicated a larger positive B/C Ratio, but the fixed costs of developing the program were underestimated.

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	1,317.29	5,488.09	1,434.94	5,978.22	3,311.48	2,666.74	1.09

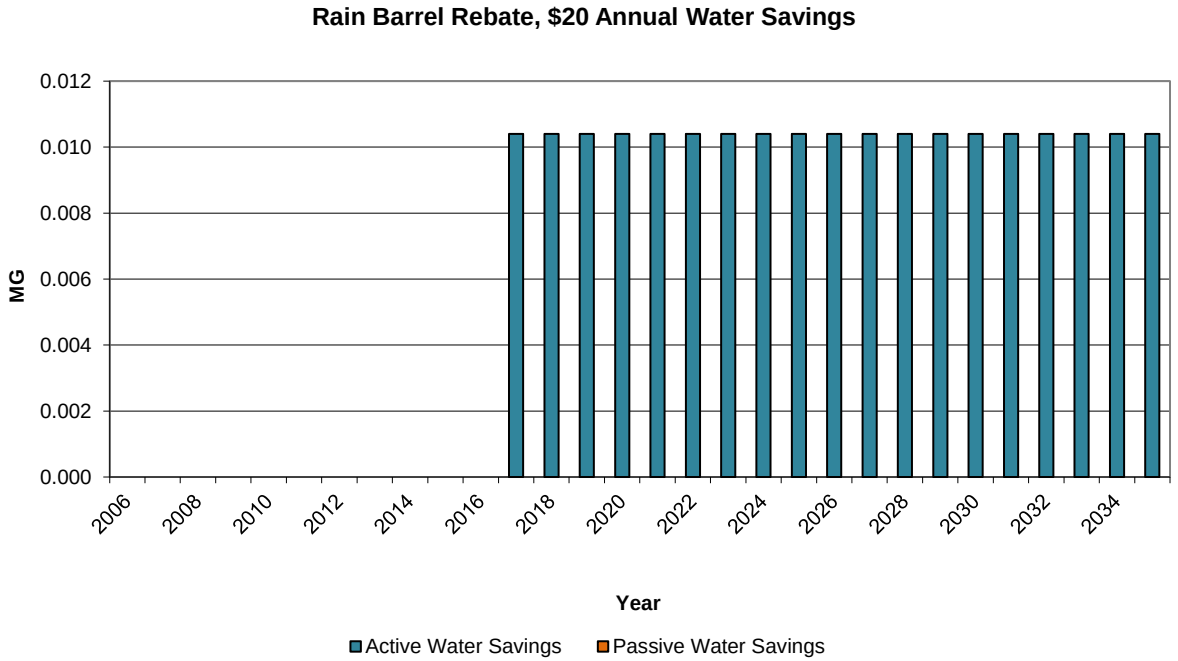
The projected water savings through 2035 is demonstrated below.



3. Rain Barrel Rebate Program

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

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



Also, the rain barrel rebate application is shown on the following page. The press release and website information is shown in the Education section.

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

RAIN BARREL
$20 REBATE

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

TO QUALIFY

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

TIPS FOR INSTALLATION & USE

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

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

Rain Barrel Rebate Application Back Side

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 - 2017, the Utility contacted all 3 builders of this subdivision and informed/reminded them about the rebate program. In 2017, we did receive one inquiry about the irrigation controllers from a customer living in this area; however, this subdivision is still in the process of being built and, according to the inquiry, most of the residents in this subdivision do not have automatic sprinklers. 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? _____

Addresses Ending With An	May Water On These Days	During These Hours
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

Irrigation Controller Rebate Form for Cloverland Farms

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

The Incentive Letter, Application, information on the companies that responded to the letter, and information on a 2017 completed project for this grant and incentive program is shown on the following pages.

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

115 DELAFIELD STREET
WAUKESHA ,WI53188-3615

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

August 1, 2017

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 15, 2017;** and receive approval for the project *before* the new technology is ordered. Waukesha Water will assess pending projects to determine if the project is eligible for an incentive.

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

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

Sincerely,

WAUKESHA WATER UTILITY
Customer Service

Enclosure: Water Conservation Incentive Application

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

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

Water Conservation Incentive

SECTION 1: INCENTIVE INFORMATION

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

SECTION 2: APPLICATION REQUIREMENTS

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

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

SECTION 3: CUSTOMER LEGAL INFORMATION

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

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

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

Make Check to the Attention of:

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

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

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

Business Type (Check ONE):

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

❑ Healthcare ❑ Manufacturing, type _____

Front Side of Incentive Application

Waukesha Water Utility

SERVING WAUKESHA SINCE 1868

Water Conservation Incentive

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

Project Description (including costs):

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

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

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

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

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

SECTION 7: BACKGROUND QUESTIONS

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

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

APPLICANT:

Name: _____

Signature: _____

Date: _____

WAUKESHA WATER UTILITY:

Name: _____

Signature: _____

Date: _____

P:\Conservation\2013\Grants\Application Form\App Water Conservation Incentive_Back Side.docx

Back Side of Incentive Application

In 2017, we had two companies respond to our incentive letter - Lifeway & Carroll University. Lifeway is doing some research on a possibly modifying their entire refrigeration system in 2019 and wanted to know if incentives would be available at that time. Carroll University is also doing research on possibly updating their condensers and compressors in their student dining room. The University will follow up with us in the future if they decide to go forward with their project.

Some of Alloy Products Corporation's New Waste Water Recycling System Components

A. Alloy Products Corporation – one of our top 15 industrial users

Alloy Products Corporation is a metal industrial company that manufactures stainless steel pressure vessels used for sanitary, industrial, and general applications. Alloy Products submitted a water conservation incentive application in 2016 to install a new wastewater recycle system. The installation of this recycling system was completed in February 2017.

In addition to new recycling system, Alloy also changed out 12 old toilets for 1.28 gpf WaterSense toilets.

In 2016, the Utility provided Alloy Corporation an initial grant of $1,400.

In 2017, after calculating the water savings and adding in the toilet rebates, the Utility issued Alloy Products a check for $2,394.49.

To calculate the incentive, the Utility used its cost benefit ratio of $1 for every 310 gallons saved; and offered a $50 toilet rebate (instead of the $100 rebate) because the Utility was not notified of the toilet change out and, therefore, was unable to verify the dates/gallons per flush of the old toilets.

Alloy's remittance letter, showing the final financial payout in 2017, is shown on the following page.

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 31, 2017

Alloy Products, Corporation
Attn: Bob Rosenkranz
1045 Perkins Avenue
Waukesha, WI 53186

Re: Water Conservation with the new Wastewater Recycling System and Water Efficient Toilets

To Whom It May Concern,

As part of its Water Conservation program, Waukesha Water Utility is remitting this check for $2,394.49. This check, along with the previous front end check for $1,400, are to be used to offset the costs associated with Alloy's water conservation updates.

The Utility appreciates the water conservation measures taken by Alloy which include the following:

1. Eliminated the need to send water to the drain by installing a new wastewater recycling system. This new system is estimated to save 990,293 gallons of water per year.

2. Replaced old, water-wasting toilets with new, 1.28 gallon per flush, WaterSense toilets. These 12 water-efficient toilets are estimated to save 137,816 gallons of water per year.

Your combined efforts are estimated to save 1,128,109 gallons of water annually!

Thank you for helping our community conserve this important natural resource.

Sincerely,

WAUKESHA WATER UTILITY

Mary Adelmeyer

Mary K. Adelmeyer
Customer Relations Representative

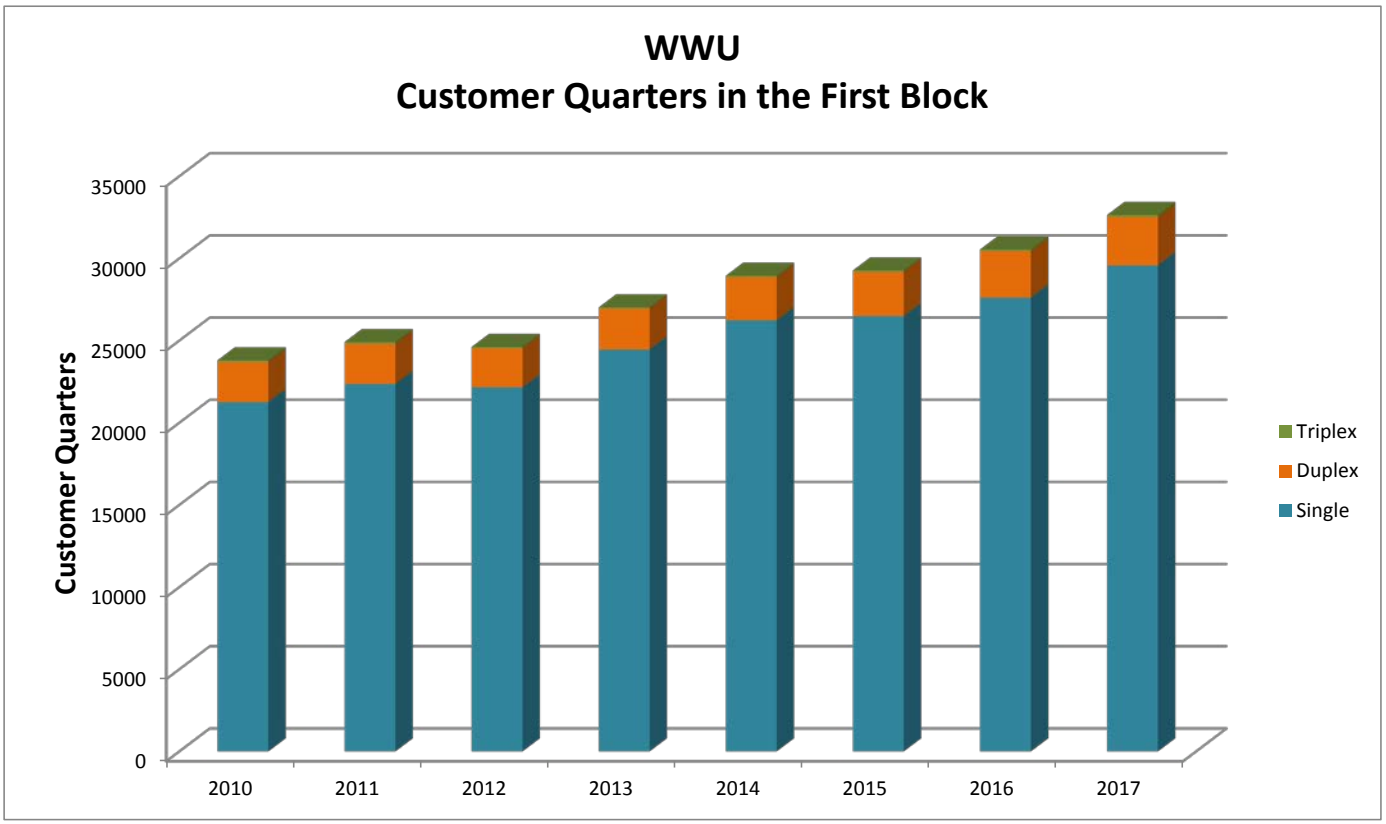
c: Todd Schlicht, Alloy Products

Enclosure: Check number 41523

2017 Remittance Letter for Alloy Products

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.

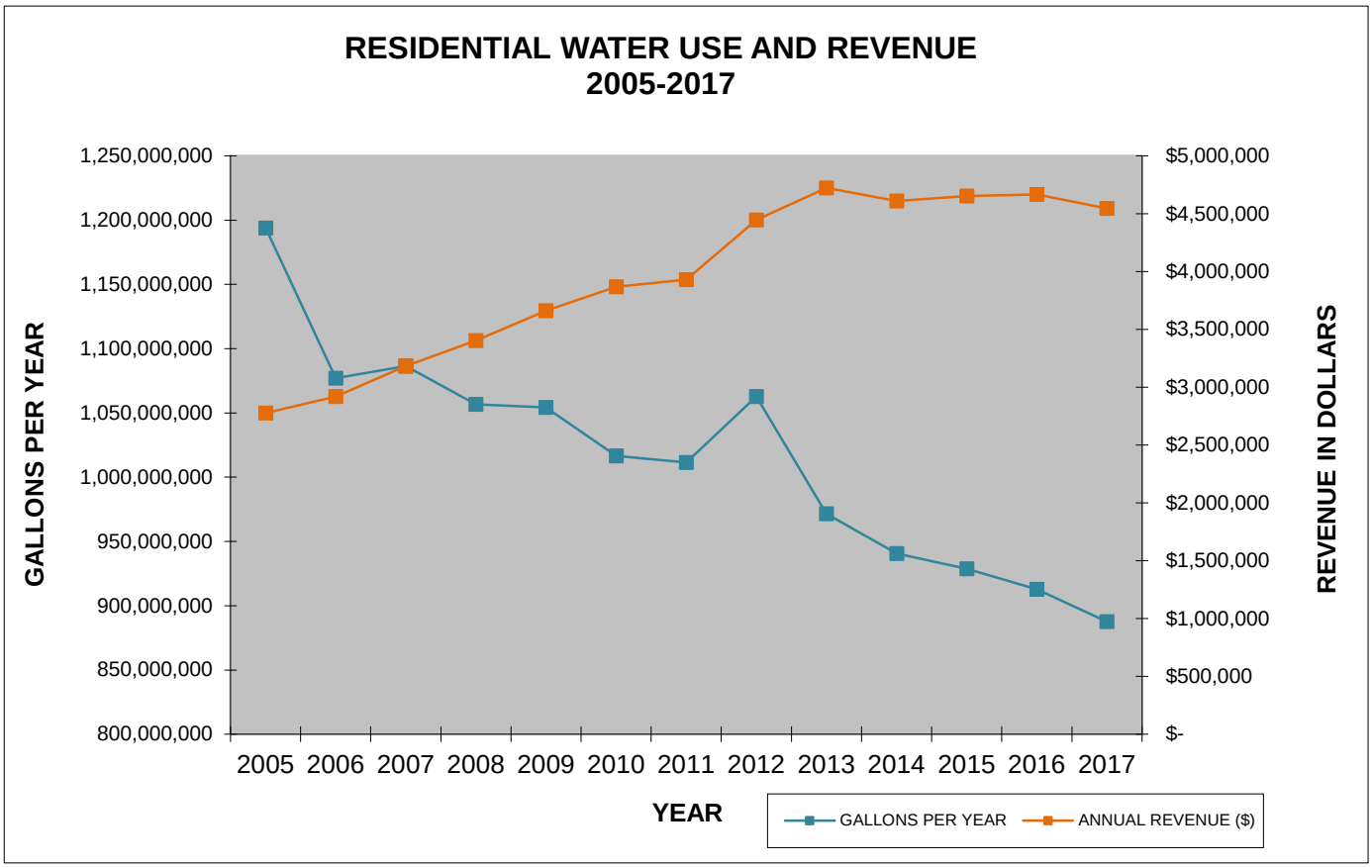


The detailed data, on the next three pages, supplements the consumption history; supplied in previous years' reports. In order to provide a more accurate picture of "# of customers," volumes associated with final reads have been excluded.

Single Family Consumption																				
	2013				2014				2015				2016				2017			
Interval	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%
	Quarter 1				Quarter 1				Quarter 1				Quarter 1				Quarter 1			
0-10,000	6,504	41.2%	40,671,800	20.8%	6,707	42.0%	41,519,300	21.3%	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%
10,001-30,000	8,993	56.9%	141,747,400	72.5%	8,944	56.0%	139,750,000	71.6%	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%
>30,000	305	1.9%	12,989,700	6.6%	312	2.0%	13,828,400	7.1%	269	1.7%	12,756,600	6.6%	260	1.6%	10,477,200	5.6%	249	1.5%	10,734,000	5.8%
Q Total	15,802	100.0%	195,408,900	100.0%	15,963	100.0%	195,097,700	100.0%	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%
	Quarter 2				Quarter 2				Quarter 2				Quarter 2				Quarter 2			
0-10,000	6,512	41.2%	40,878,800	20.5%	6,552	40.9%	41,039,600	20.0%	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%
10,001-30,000	8,978	56.8%	142,200,900	71.3%	8,969	56.0%	141,451,900	68.8%	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%
>30,000	324	2.0%	16,337,000	8.2%	490	3.1%	22,980,000	11.2%	290	1.8%	12,975,200	6.9%	290	1.8%	11,490,800	6.1%	247	1.5%	10,005,600	5.5%
Q Total	15,814	100.0%	199,416,700	100.0%	16,011	100.0%	205,471,500	100.0%	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%
	Quarter 3				Quarter 3				Quarter 3				Quarter 3				Quarter 3			
0-10,000	5148	32.5%	32,393,400	13.6%	6,109	38.1%	38,701,200	18.2%	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%
10,001-30,000	9792	61.8%	164,810,700	69.4%	9,374	58.5%	151,431,200	71.1%	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%
>30,000	909	5.7%	40,120,000	16.9%	539	3.4%	22,878,200	10.7%	737	4.6%	32,575,600	14.6%	767	4.7%	35,959,100	16.0%	554	3.4%	24,290,900	11.6%
Q Total	15849	100.0%	237,324,100	100.0%	16,022	100.0%	213,010,600	100.0%	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%
	Quarter 4				Quarter 4				Quarter 4				Quarter 4				Quarter 4			
0-10,000	6,280	39.5%	39,502,600	19.4%	6,856	42.7%	43,272,300	22.0%	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%
10,001-30,000	9,165	57.6%	145,236,300	71.3%	8,844	55.1%	138,233,600	70.3%	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%
>30,000	461	2.9%	18,943,600	9.3%	357	2.2%	15,098,300	7.7%	412	2.6%	17,644,200	8.9%	344	2.1%	14,907,700	7.7%	401	2.5%	16,839,200	8.6%
Q Total	15,906	100.0%	203,682,500	100.0%	16,057	100.0%	196,604,200	100.0%	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%
	Annual				Annual				Annual				Annual				Annual			
0-10,000	6,111	38.6%	153,446,600	18.4%	6,556	40.9%	164,532,400	20.3%	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%
10,001-30,000	9,232	58.3%	593,995,300	71.1%	9,033	56.4%	570,866,700	70.5%	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%
>30,000	500	3.2%	88,390,300	10.6%	425	2.7%	74,784,900	9.2%	427	2.7%	75,951,600	9.5%	415	2.6%	72,834,800	9.2%	363	2.2%	61,869,700	8.0%
Total	15,843	100.0%	835,832,200	100.0%	16,013	100.0%	810,184,000	100.0%	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%

Two Family Consumption																				
	2013				2014				2015				2016				2017			
Interval	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%
	Quarter 1				Quarter 1				Quarter 1				Quarter 1				Quarter 1			
0-20,000	639	45.3%	8,381,800	25.7%	666	47.7%	8,611,000	27.0%	673	48.7%	8,714,400	27.9%	712	52.0%	9,143,600	31.3%	729	53.8%	9,374,000	32.3%
20,001-35,000	570	40.4%	14,984,800	46.0%	537	38.4%	14,207,500	44.5%	526	38.1%	13,840,000	44.4%	509	37.2%	13,424,700	45.9%	470	34.7%	12,415,400	42.8%
>35,000	201	14.3%	9,218,400	28.3%	194	13.9%	9,108,500	28.5%	183	13.2%	8,641,300	27.7%	147	10.7%	6,648,500	22.8%	157	11.6%	7,214,600	24.9%
Q Total	1,410	100.0%	32,585,000	100.0%	1,397	100.0%	31,927,000	100.0%	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%
	Quarter 2				Quarter 2				Quarter 2				Quarter 2				Quarter 2			
0-20,000	663	47.0%	8,739,100	26.7%	645	46.0%	8,332,900	25.8%	704	50.8%	9,137,500	30.5%	722	52.6%	9,220,200	31.6%	745	55.0%	9,499,700	34.2%
20,001-35,000	535	37.9%	14,107,900	43.1%	556	39.7%	14,598,900	45.2%	523	37.8%	13,724,500	45.7%	513	37.4%	13,637,400	46.7%	469	34.6%	12,085,400	43.5%
>35,000	212	15.0%	9,912,400	30.3%	201	14.3%	9,393,200	29.1%	158	11.4%	7,146,100	23.8%	137	10.0%	6,321,800	21.7%	140	10.3%	6,228,600	22.4%
Q Total	1,410	100.0%	32,759,400	100.0%	1,402	100.0%	32,325,000	100.0%	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%
	Quarter 3				Quarter 3				Quarter 3				Quarter 3				Quarter 3			
0-20,000	546	38.8%	7,220,000	20.0%	639	45.8%	8,319,600	25.1%	638	46.2%	8,364,700	25.5%	680	49.7%	8,980,200	29.3%	715	53.0%	9,462,200	31.7%
20,001-35,000	580	41.2%	15,436,700	42.7%	545	39.1%	14,330,200	43.2%	539	39.0%	14,439,900	44.0%	508	37.2%	13,525,100	44.1%	470	34.9%	12,318,400	41.2%
>35,000	281	20.0%	13,464,300	37.3%	211	15.1%	10,502,900	31.7%	205	14.8%	10,041,200	30.6%	179	13.1%	8,152,700	26.6%	163	12.1%	8,100,300	27.1%
Q Total	1,407	100.0%	36,121,000	100.0%	1,395	100.0%	33,152,700	100.0%	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%
	Quarter 4				Quarter 4				Quarter 4				Quarter 4				Quarter 4			
0-20,000	642	45.7%	8,438,600	25.2%	668	47.7%	8,557,700	27.1%	663	48.0%	8,462,400	27.1%	701	51.5%	9,146,800	30.0%	759	56.3%	10,137,200	35.1%
20,001-35,000	547	39.0%	14,682,300	43.9%	544	38.8%	14,155,900	44.9%	533	38.6%	13,940,600	44.7%	482	35.4%	12,669,000	41.6%	451	33.5%	11,783,600	40.7%
>35,000	215	15.3%	10,313,400	30.8%	189	13.5%	8,826,900	28.0%	186	13.5%	8,817,000	28.2%	179	13.1%	8,630,600	28.3%	137	10.2%	6,996,300	24.2%
Q Total	1,404	100.0%	33,434,300	100.0%	1,401	100.0%	31,540,500	100.0%	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%
	Annual				Annual				Annual				Annual				Annual			
0-20,000	623	44.2%	32,779,500	24.3%	655	46.8%	33,821,200	26.2%	670	48.4%	34,679,000	27.7%	704	51.5%	36,490,800	30.5%	737	54.5%	38,473,100	33.3%
20,001-35,000	558	39.6%	59,211,700	43.9%	546	39.0%	57,292,500	44.4%	530	38.3%	55,945,000	44.7%	503	36.8%	53,256,200	44.6%	465	34.4%	48,602,800	42.0%
>35,000	227	16.1%	42,908,500	31.8%	199	14.2%	37,831,500	29.3%	183	13.2%	34,645,600	27.7%	161	11.7%	29,753,600	24.9%	149	11.0%	28,539,800	24.7%
Total	1,408	100.0%	134,899,700	100.0%	1,399	100.0%	128,945,200	100.0%	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%

Three Family Consumption																				
	2013				2014				2015				2016				2017			
Interval	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%	# of Customers	%	Consumption	%
	Quarter 1				Quarter 1				Quarter 1				Quarter 1				Quarter 1			
0-20,000	23	30.7%	314,600	14.2%	24	32.0%	332,900	15.2%	25	33.3%	364,300	17.3%	27	36.5%	358,600	18.7%	35	46.7%	512,100	27.5%
20,001-60,000	46	61.3%	1,494,100	67.3%	33	44.0%	907,600	41.3%	49	65.3%	1,636,200	77.6%	47	63.5%	1,560,400	81.3%	38	50.7%	1,174,800	63.1%
>60,001	6	8.0%	410,700	18.5%	18	24.0%	954,600	43.5%	1	1.3%	107,900	5.1%	-	0.0%	-	0.0%	2	2.7%	175,000	9.4%
Q Total	75	100.0%	2,219,400	100.0%	75	100.0%	2,195,100	100.0%	75	100.0%	2,108,400	100.0%	74	100.0%	1,919,000	100.0%	75	100.0%	1,861,900	100.0%
	Quarter 2				Quarter 2				Quarter 2				Quarter 2				Quarter 2			
0-20,000	19	25.3%	242,600	11.6%	26	34.7%	385,900	18.4%	27	36.0%	398,800	20.2%	29	38.7%	365,700	20.1%	33	44.0%	475,900	28.1%
20,001-60,000	54	72.0%	1,678,900	80.2%	30	40.0%	792,100	37.8%	46	61.3%	1,412,700	71.4%	45	60.0%	1,380,500	75.7%	42	56.0%	1,216,900	71.9%
>60,001	2	2.7%	171,100	8.2%	19	25.3%	916,600	43.8%	2	2.7%	166,600	8.4%	1	1.3%	76,800	4.2%	-	0.0%	-	0.0%
Q Total	75	100.0%	2,092,600	100.0%	75	100.0%	2,094,600	100.0%	75	100.0%	1,978,100	100.0%	75	100.0%	1,823,000	100.0%	75	100.0%	1,692,800	100.0%
	Quarter 3				Quarter 3				Quarter 3				Quarter 3				Quarter 3			
0-20,000	17	22.7%	203,000	9.1%	24	32.0%	339,700	16.3%	28	36.4%	386,200	17.0%	27	35.1%	372,300	18.6%	24	31.6%	316,200	17.0%
20,001-60,000	55	73.3%	1,797,300	80.3%	32	42.7%	819,800	39.3%	44	57.1%	1,441,000	63.6%	49	63.6%	1,566,800	78.1%	52	68.4%	1,548,800	83.0%
>60,001	3	4.0%	236,800	10.6%	19	25.3%	928,300	44.5%	5	6.5%	440,000	19.4%	1	1.3%	67,400	3.4%	-	0.0%	-	0.0%
Q Total	75	100.0%	2,237,100	100.0%	75	100.0%	2,087,800	100.0%	77	100.0%	2,267,200	100.0%	77	100.0%	2,006,500	100.0%	76	100.0%	1,865,000	100.0%
	Quarter 4				Quarter 4				Quarter 4				Quarter 4				Quarter 4			
0-20,000	22	29.3%	278,600	13.3%	24	32.0%	354,400	17.3%	30	39.5%	400,400	19.8%	30	40.0%	413,300	22.0%	31	40.8%	430,300	22.3%
20,001-60,000	49	65.3%	1,553,700	74.0%	35	46.7%	907,500	44.3%	44	57.9%	1,448,000	71.8%	44	58.7%	1,379,100	73.4%	44	57.9%	1,440,400	74.6%
>60,001	4	5.3%	266,700	12.7%	16	21.3%	788,400	38.5%	2	2.6%	169,200	8.4%	1	1.3%	87,700	4.7%	1	1.3%	60,500	3.1%
Q Total	75	100.0%	2,099,000	100.0%	75	100.0%	2,050,300	100.0%	76	100.0%	2,017,600	100.0%	75	100.0%	1,880,100	100.0%	76	100.0%	1,931,200	100.0%
	Annual				Annual				Annual				Annual				Annual			
0-20,000	20	27.0%	1,038,800	12.0%	25	32.7%	24	0.0%	28	36.3%	1,549,700	18.5%	28	37.5%	1,509,900	19.8%	31	40.7%	1,734,500	23.6%
20,001-60,000	51	68.0%	6,524,000	75.4%	33	43.3%	35	0.0%	46	60.4%	5,937,900	70.9%	46	61.5%	5,886,800	77.2%	44	58.3%	5,380,900	73.2%
>60,001	4	5.0%	1,085,300	12.5%	18	24.0%	16	0.0%	3	3.3%	883,700	10.6%	1	1.0%	231,900	3.0%	1	1.0%	235,500	3.2%
Total	75	100.0%	8,648,100	100.0%	75	100.0%	8,427,800	100.0%	76	100.0%	8,371,300	100.0%	75	100.0%	7,628,600	100.0%	76	100.0%	7,350,900	100.0%



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

V. CONSERVATION EFFICIENCY MEASURES - NONRESIDENTIAL CUSTOMERS

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

Metered Usage for Non-Residential							
Billing Class	2011 (Gallons)	2012 (Gallons)	2013 (Gallons)	2014 (Gallons)	2015 (Gallons)	2016 (Gallons)	2017 (Gallons)
Commercial	795,106,272	816,621,116	795,377,000	780,972,720	774,316,900	763,290,200	729,873,000
Industrial	340,464,000	334,776,300	266,539,000	270,877,200	262,476,500	237,069,700	232,668,900
Public	99,126,100	114,020,400	92,508,000	92,618,300	99,075,700	83,040,900	72,384,600

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) (New in 2017)
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)
15. Lateral Replacement Program for Water Run Accounts (for all 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. 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				
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 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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Initial Irrigation Letter Mailed Out to Accounts Billed Water Only for Public Sprinkling Meters

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 $180.00 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

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Cover Letter for Irrigation Meter Application

Waukesha Water Utility

IRRIGATION METER

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

1. **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 ($180.00)**
   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 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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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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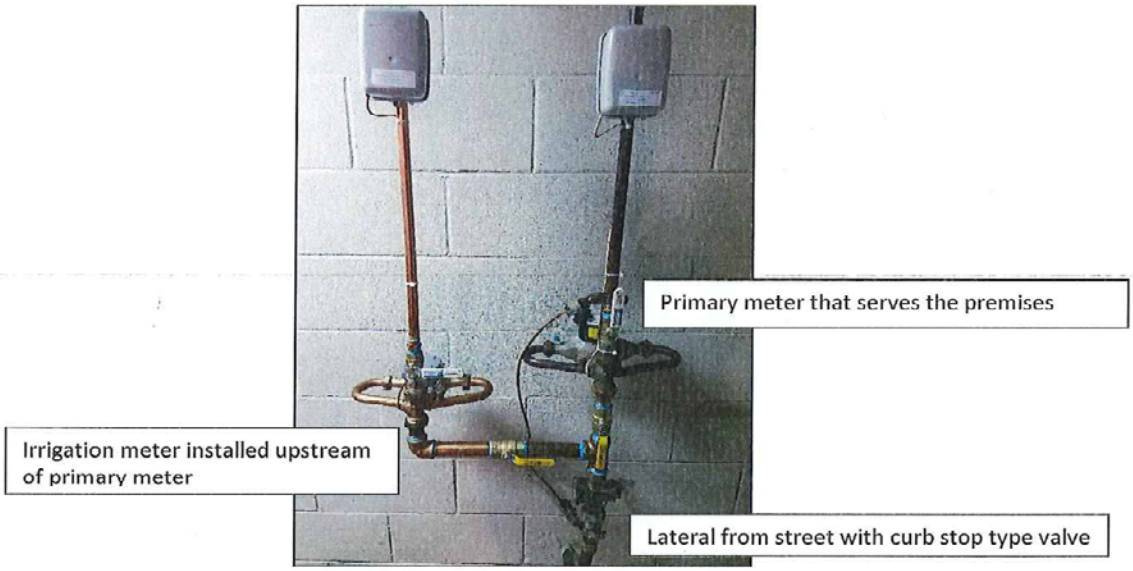
Waukesha Water Utility

IRRIGATION METER SPECIFICATIONS



Installation of a 5/8 inch irrigation meter

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

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

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

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

NOTE 4: All brass must be lead free.

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

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

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

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Irrigation Meter Installation Specifications Sheet

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

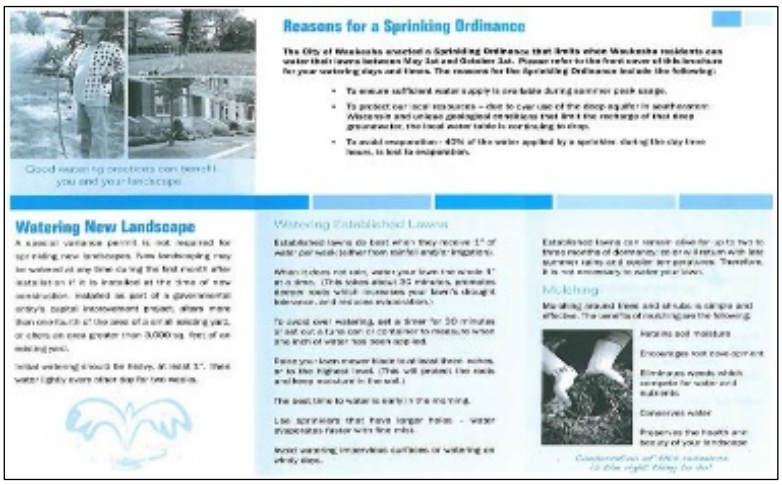
There is a discussion of each of these tools below; followed by data that demonstrates the efficacy of the Utility's approach.

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.

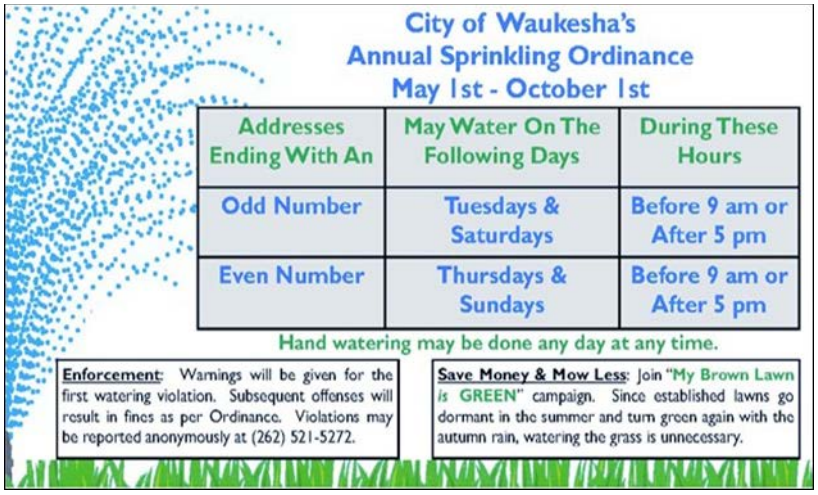
A brochure that explains the ordinance is placed at several public locations.

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

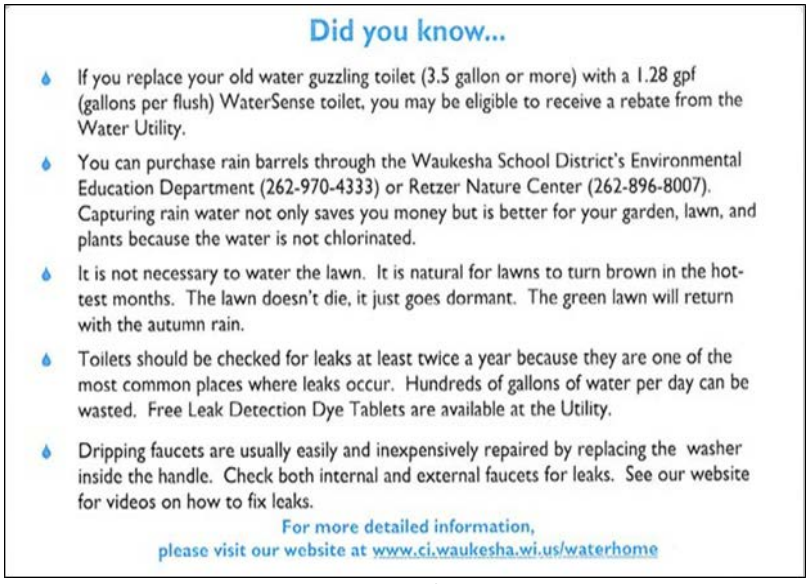
Addresses Ending With An	May Water On The Following Days	During These Hours
Odd Number	Tuesdays & Saturdays	Before 9 am or After 5 pm
Even Number	Thursdays & Sundays	Before 9 am or After 5 pm

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 place 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:

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

Before citations are issued, **Notices are sent to violators** to encourage them to comply. In 2017, there were 10 violators who received notices. Compared to previously years, the number of notices mailed out had decreased. This decrease was due to the amount of rainfall this past year - the lawns were green for the majority of the summer.

Waukesha Water Utility

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

For Immediate Release

Press Release

May 2017- Waukesha Water Utility would like to remind city residents of the 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.

Waukesha Water Utility customers may pick up a yard sign at 115 Delafield St that reads "My Brown Lawn is Green" to show your dedication to our conservation efforts.

For additional information and exceptions to the day and time restrictions, please visit the Water Utility's website at www.waukesha-water.com or phone the Utility at (262) 521-5272.

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

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 | Utility and Commission | Conservation

Sprinkling Ordinance

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

Sprinkling Tips

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

Last updated 06/05/2015

Sprinkling Ordinance & Tips Posted on the Website

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 2017, there were 3 permits 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/dept/building/FORMS.htm

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

Application for Irrigation System Permit

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

INSTRUCTIONS FOR IRRIGATION SYSTEM PERMIT

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

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

A permit must be issued before the work commences.

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

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

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

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

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

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

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

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

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

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

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

PERMIT NO: _____

IRRIGATION SYSTEM
CONTRACTOR CERTIFICATE

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

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

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

_____, and certify that I have:
Installation Address

✓ (Check those that apply)

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

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

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

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

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

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

_____ _____
Contractor's Signature Date

_____ _____
Owner's Signature Date

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

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

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

Irrigation System Contractor Certificate

4. <u>Sewer Ordinance Change</u> (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 2016, the Utility mailed over 2,800 letters to affected customers regarding the Ordinance revision.

In 2017, the Utility mailed 62 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 197 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

August 29, 2017

RE: **Sewer Credit Ordinance Change**

Dear :

As you may have heard, the City's Sewer Ordinance was recently changed so that it better supports the Water Utility's Water Conservation efforts. Waukesha's water conservation program is an important factor leading to its ability to secure water from Lake Michigan.

The recent changes are aimed at reducing water use for activities that are considered non-essential. As a result, your bill will no longer be reduced by the value of the water that passes through your sewer credit meter.

You have until October 10th, 2017, to provide a final reading from your sewer credit meter. That reading will be used to calculate the last credit that you are entitled to. You may send in a meter card or phone in a reading.

There is no need to remove your sewer credit meter. The Water Utility will "disconnect" the meter in our records.

You are being contacted because you have had your meter for at least seven years. We calculated that in order to recoup the cost of buying and installing the meter, an average home owner would have had to receive seven years of sewer credit. The ordinance was changed so that customers could at least recover the money that they had already spent.

We understand how this change affects you. Please consider changing how you use the water that was passing through this meter. It is important for Waukesha to continue to conserve water in order to receive water from Lake Michigan.

If you have any questions about the sewer credit meters, or would like information about our conservation rebates, 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.

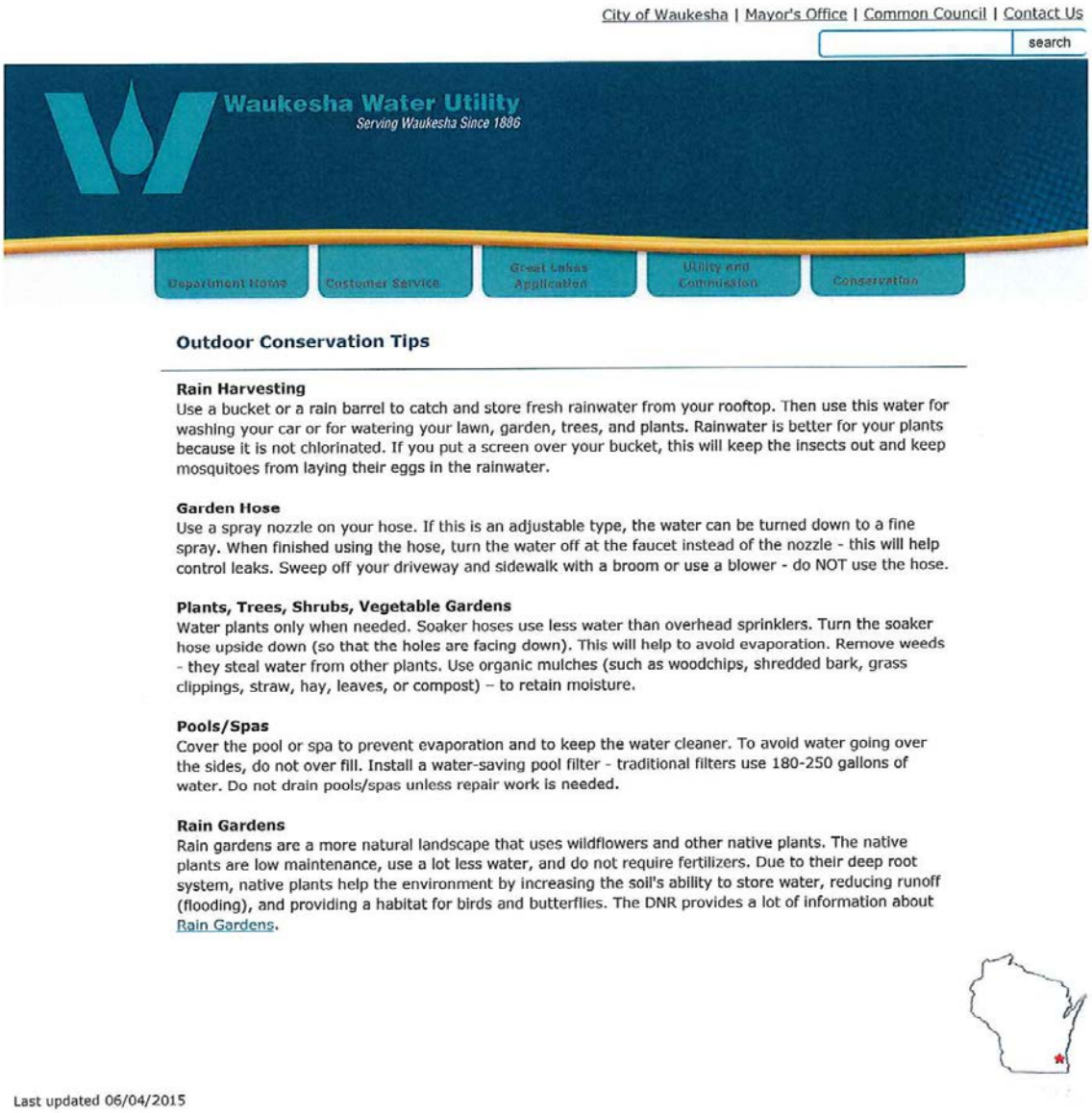
7. Rain Garden Plant Sales & Free Workshops

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

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.



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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 2017, was at a thirteen year low.

Summer Volumes as a Per Cent 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%
Average			**44.7%**			**49.1%**			**49.8%**			**53.0%**

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 2016, the Utility changed out 25 pre-rinsed spray valves. The large customers that participated in this change out program consisted of the following:

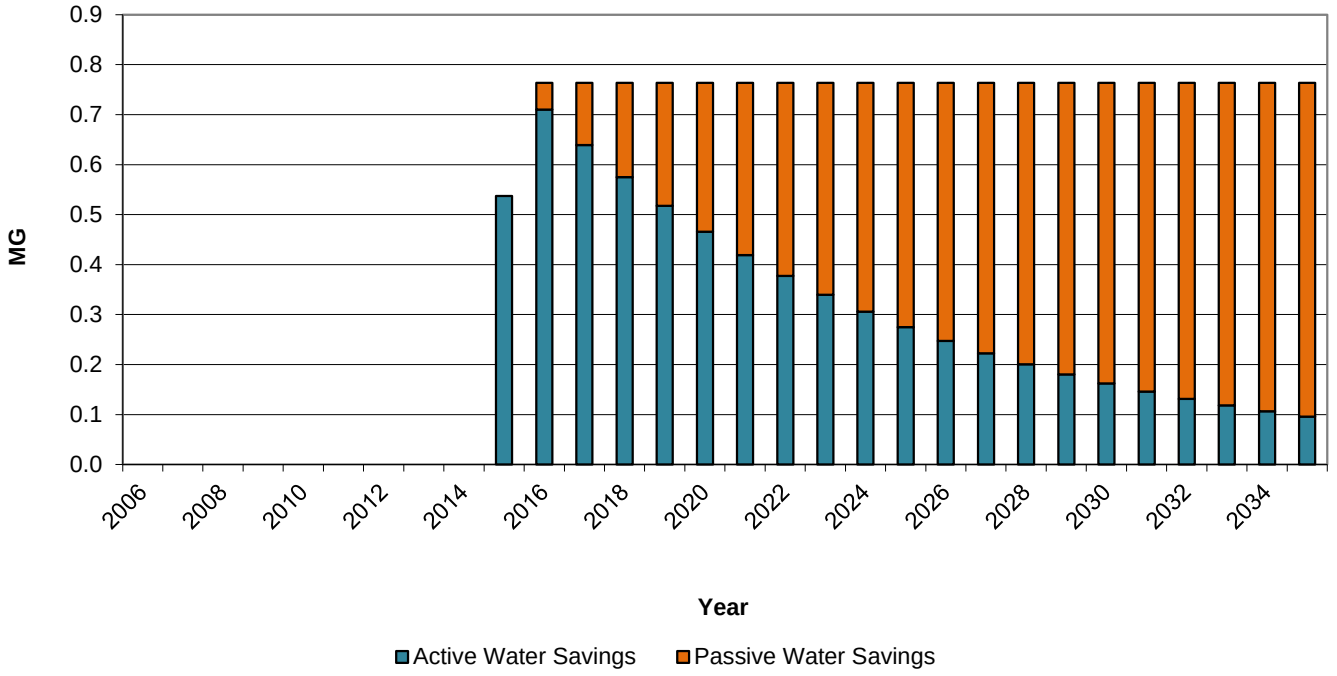
- Schools
- County Expo Building
- Elks Lodge
- Salvation Army
- Restaurants

In 2017, the Utility did not change out any pre-rinsed spray valves but plans to continue the change out program in 2018.

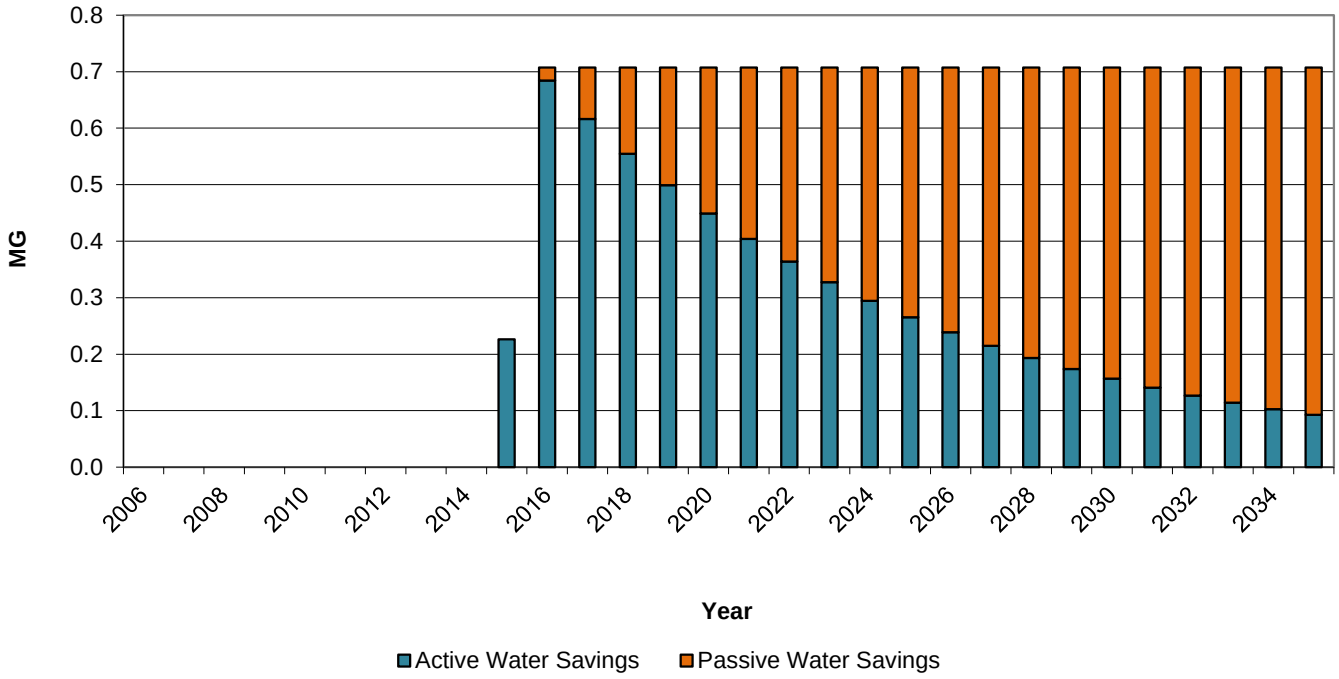
The following page shows the annual cost effectiveness of the program, along with the projected water savings through 2035, for both commercial and public accounts.

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	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

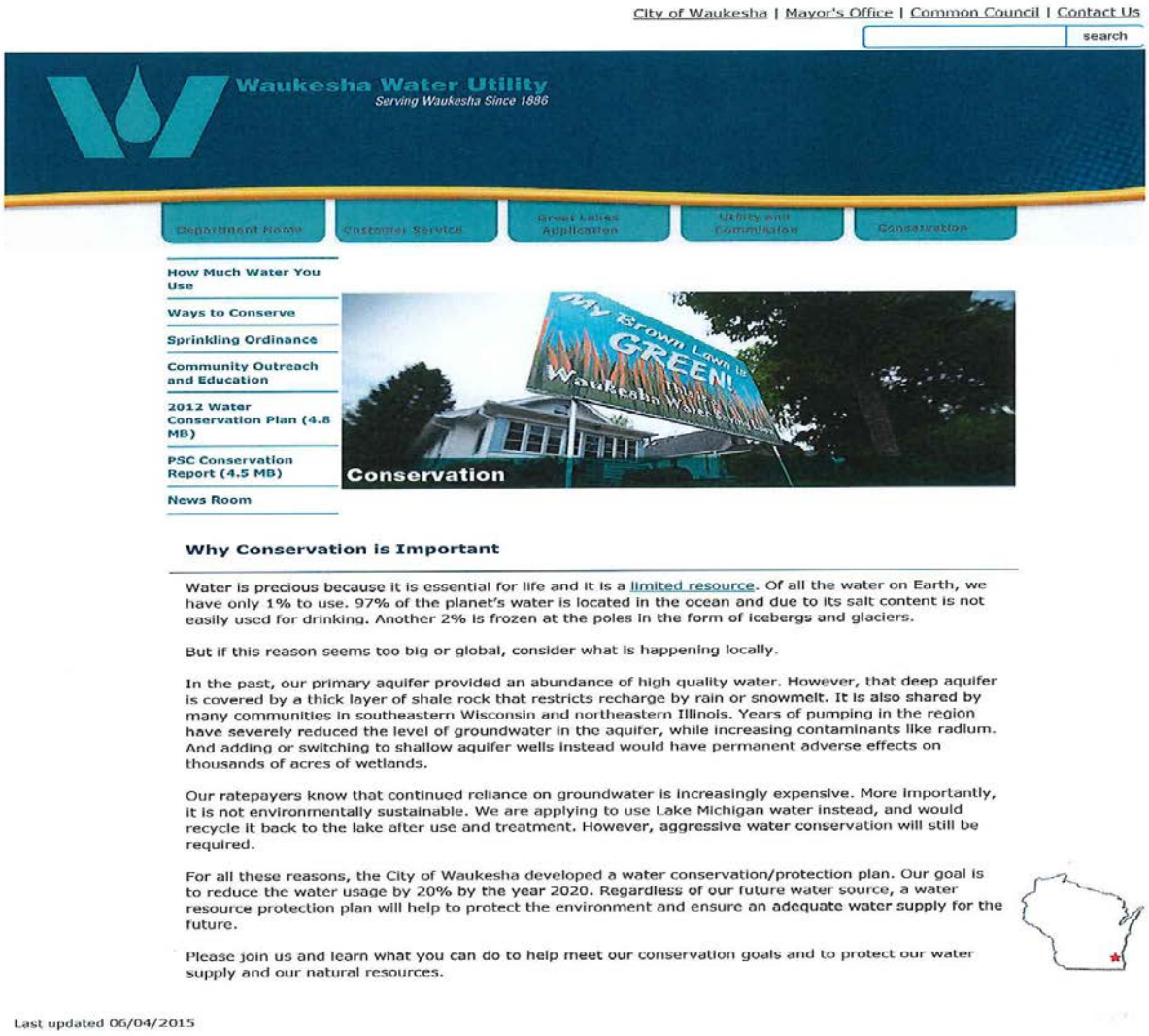


CII Spray Rinse Valve Grant (Public) Annual Water Savings



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".



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- 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

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.

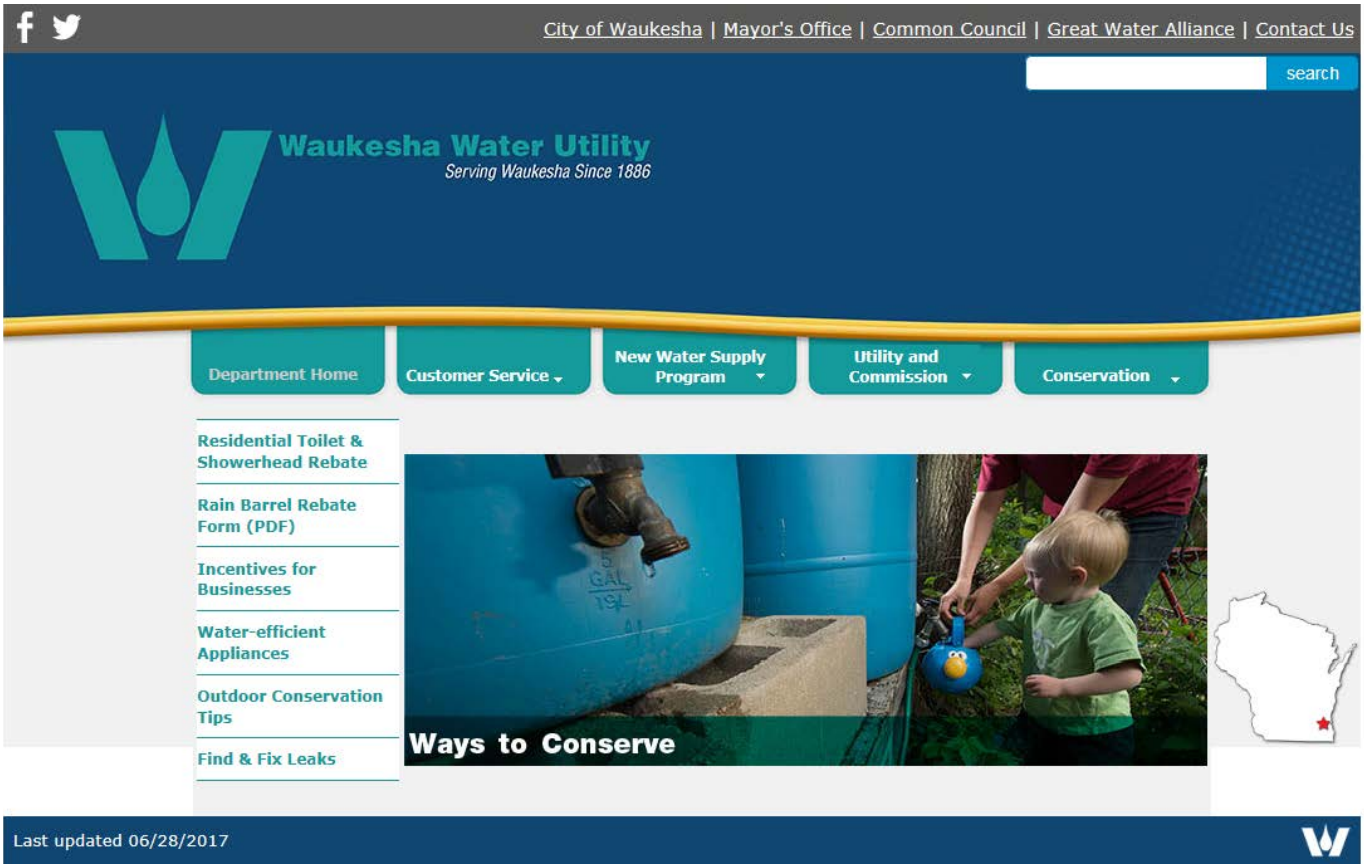
For all these reasons, the City of Waukesha developed a water conservation/protection plan. Our goal is to reduce the water usage by 20% by the year 2020. Regardless of our future water source, a water resource protection plan will help to protect the environment and ensure an adequate water supply for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



Ways to Conserve on Webpage

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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

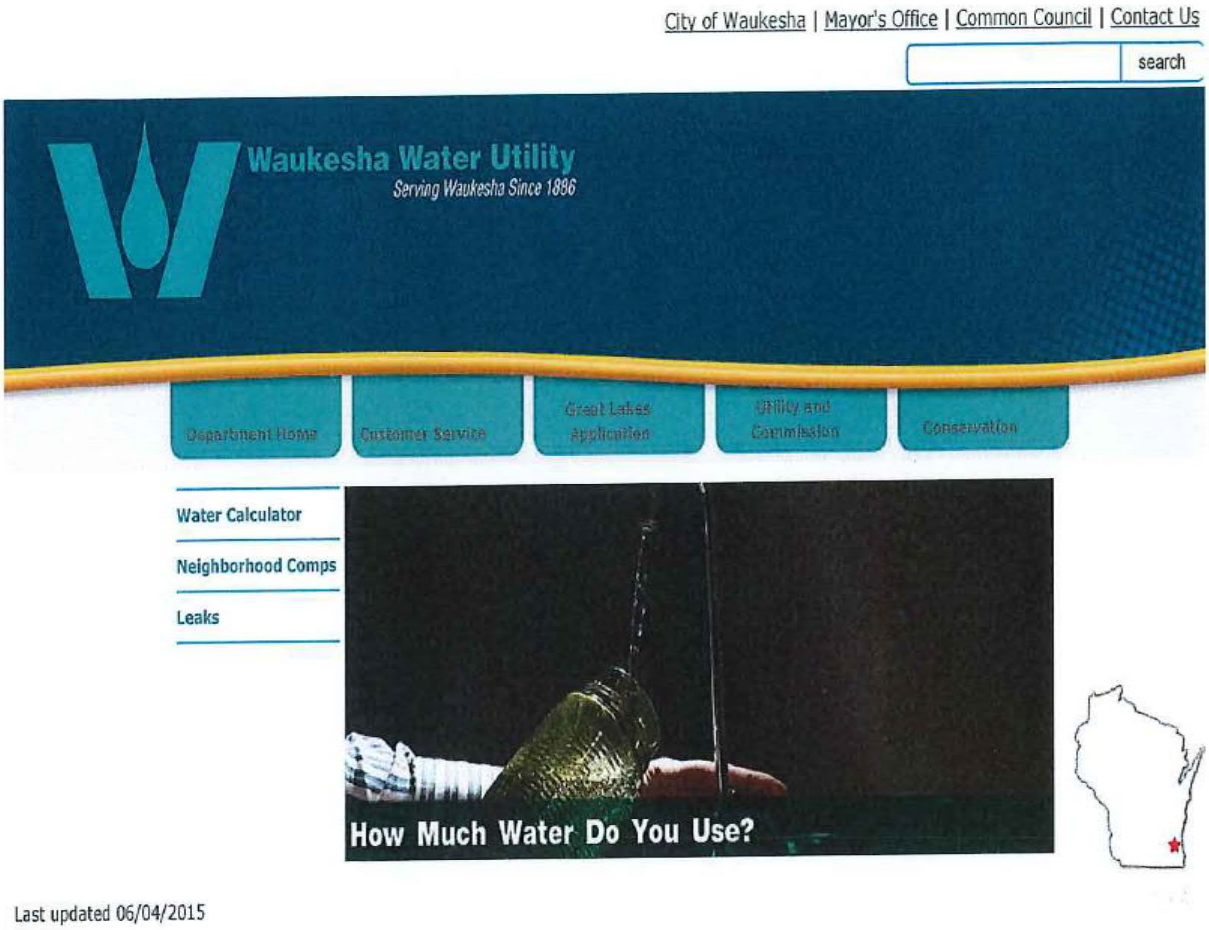
Water Efficient Appliances Webpage

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:

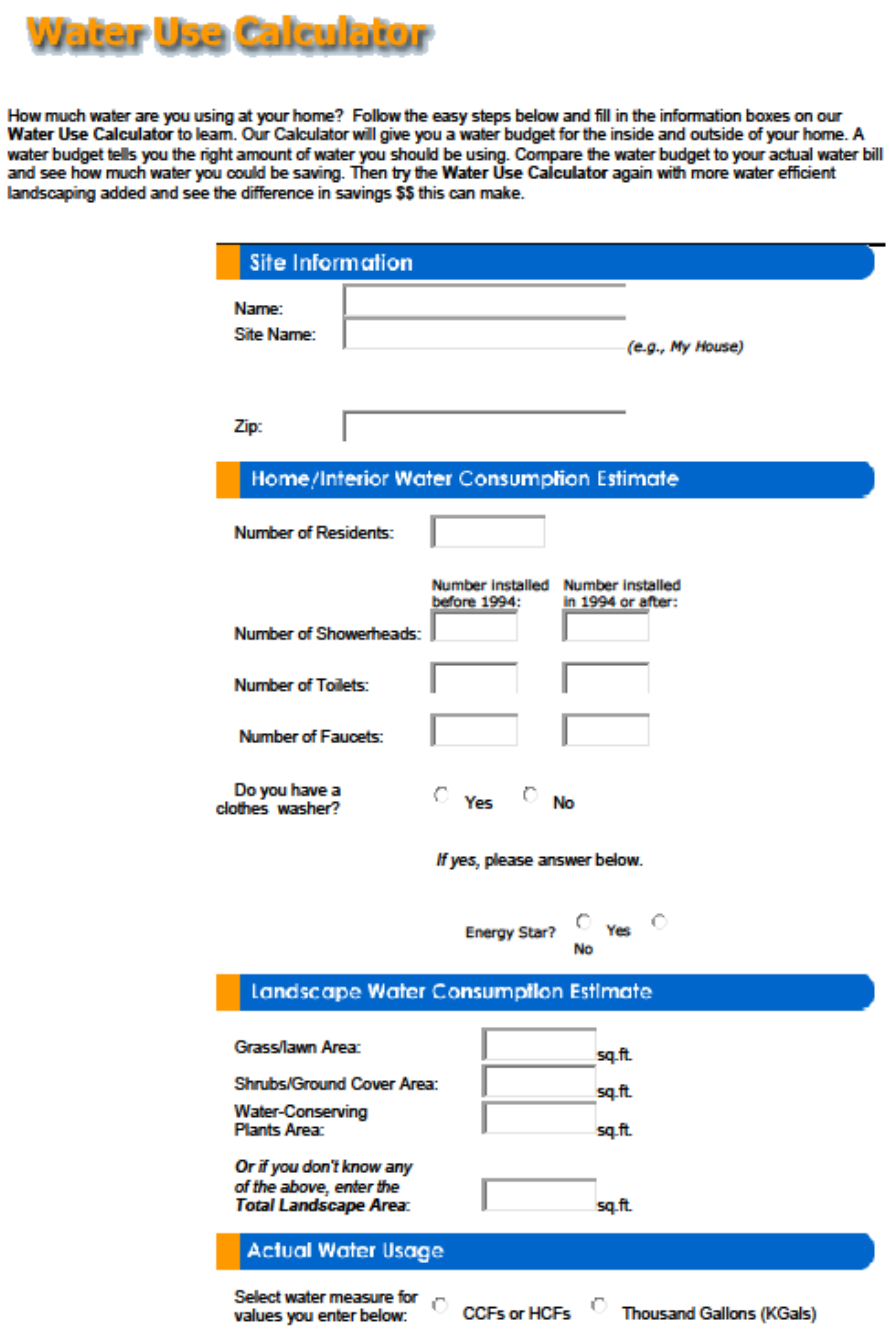
- Water Calculator (as shown on the next page)
- Leaks (please refer to section 12)
- How Your Water Consumption Compares to your Neighbors (please refer to section 13)



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

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

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



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:		
Number of Toilets:		
Number of Faucets:		

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.

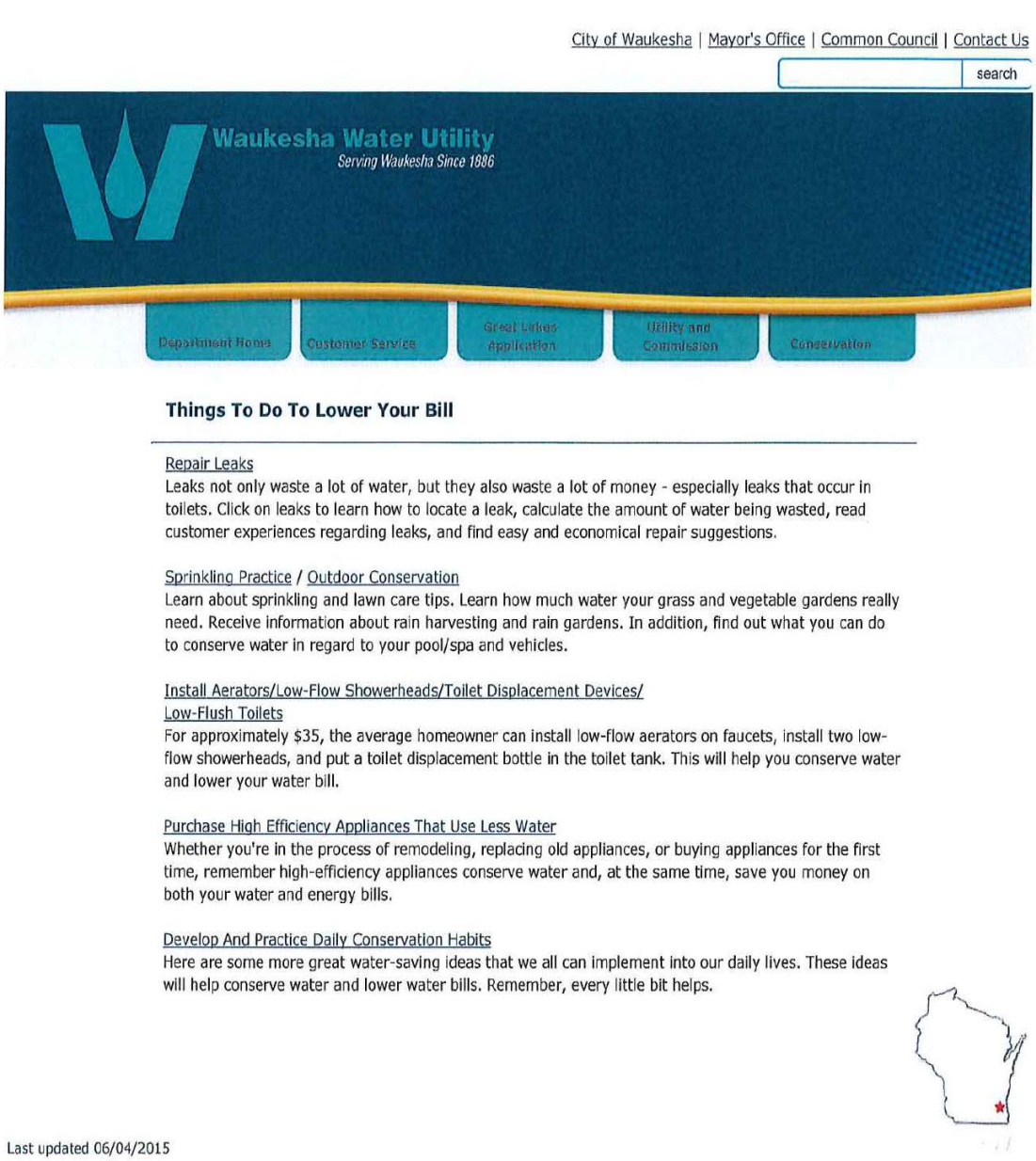
Or if you don't know any of the above, enter the Total Landscape Area: sq.ft.

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)



Information on Things to do to Lower Your Bill on Webpage

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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.

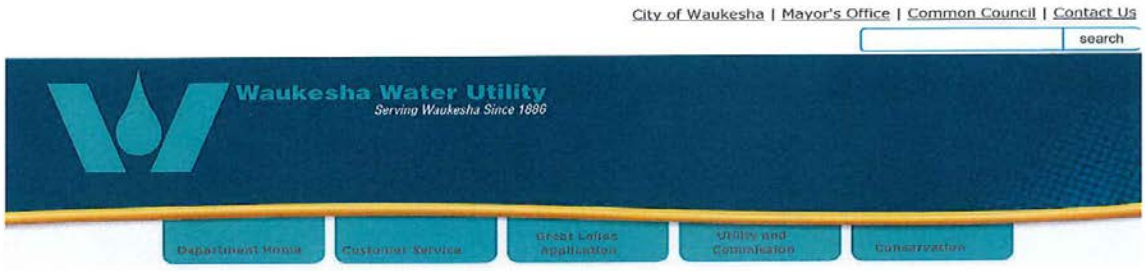
Low Flow Toilet

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



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.

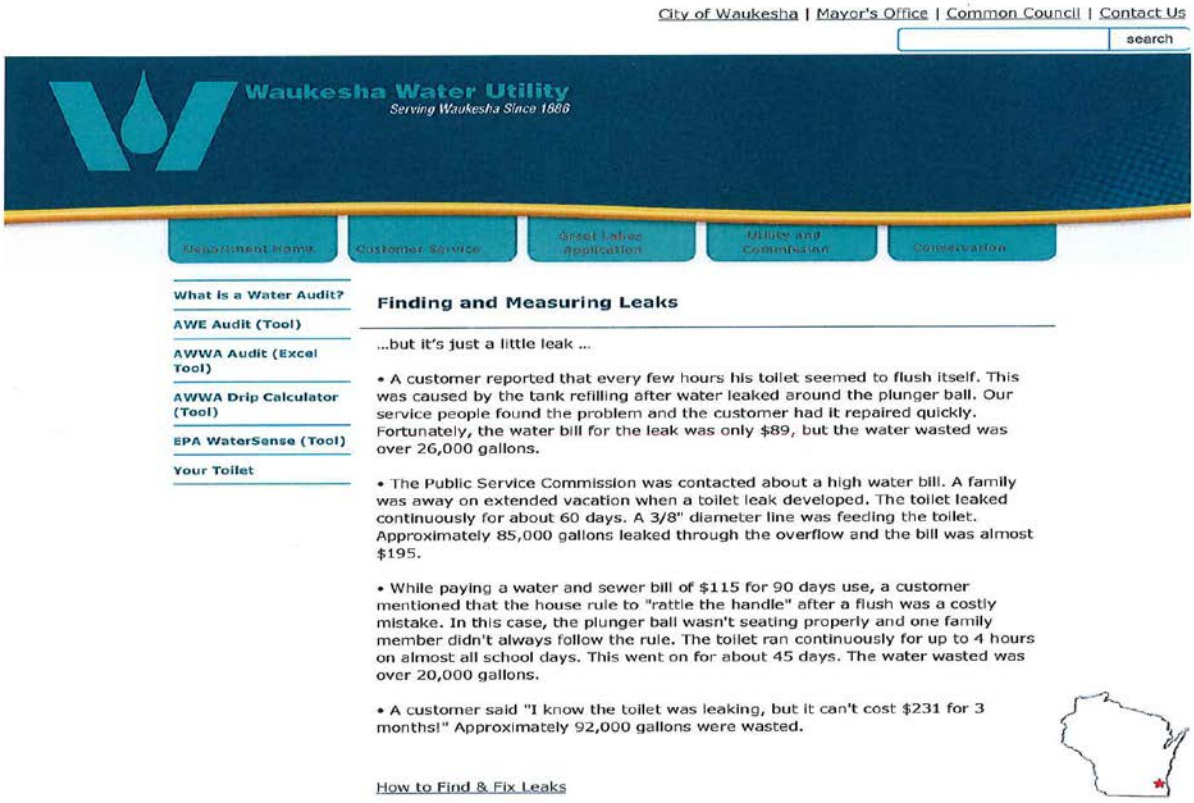
General Conservation Tips

- 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

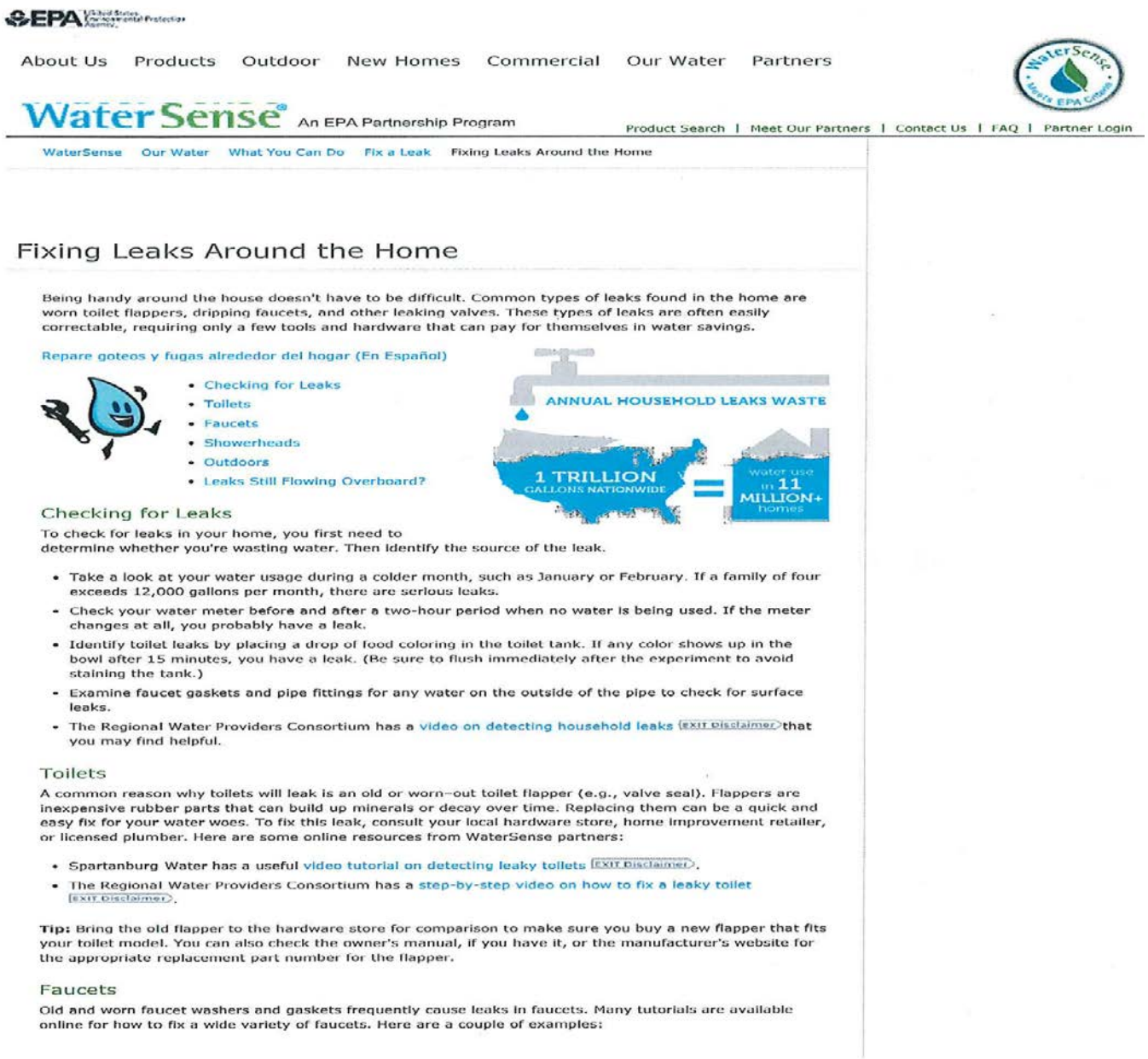
12. Program on Finding & Fixing Leaks

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.



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.



EPA

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WaterSense® An EPA Partnership Program

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WaterSense Our Water What You Can Do Fix a Leak Fixing Leaks Around the Home

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).

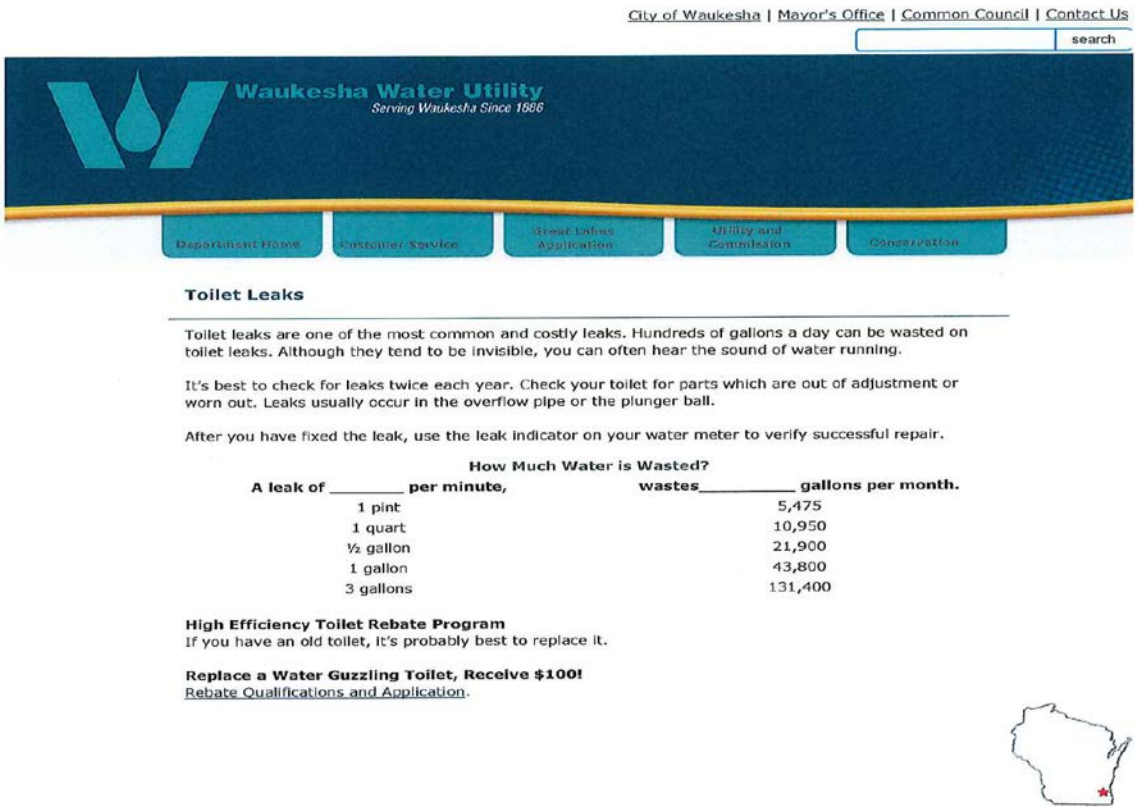
Tip: Bring the old flapper to the hardware store for comparison to make sure you buy a new flapper that fits your toilet model. You can also check the owner's manual, if you have it, or the manufacturer's website for the appropriate replacement part number for the flapper.

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).



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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.

How Much Water is Wasted?

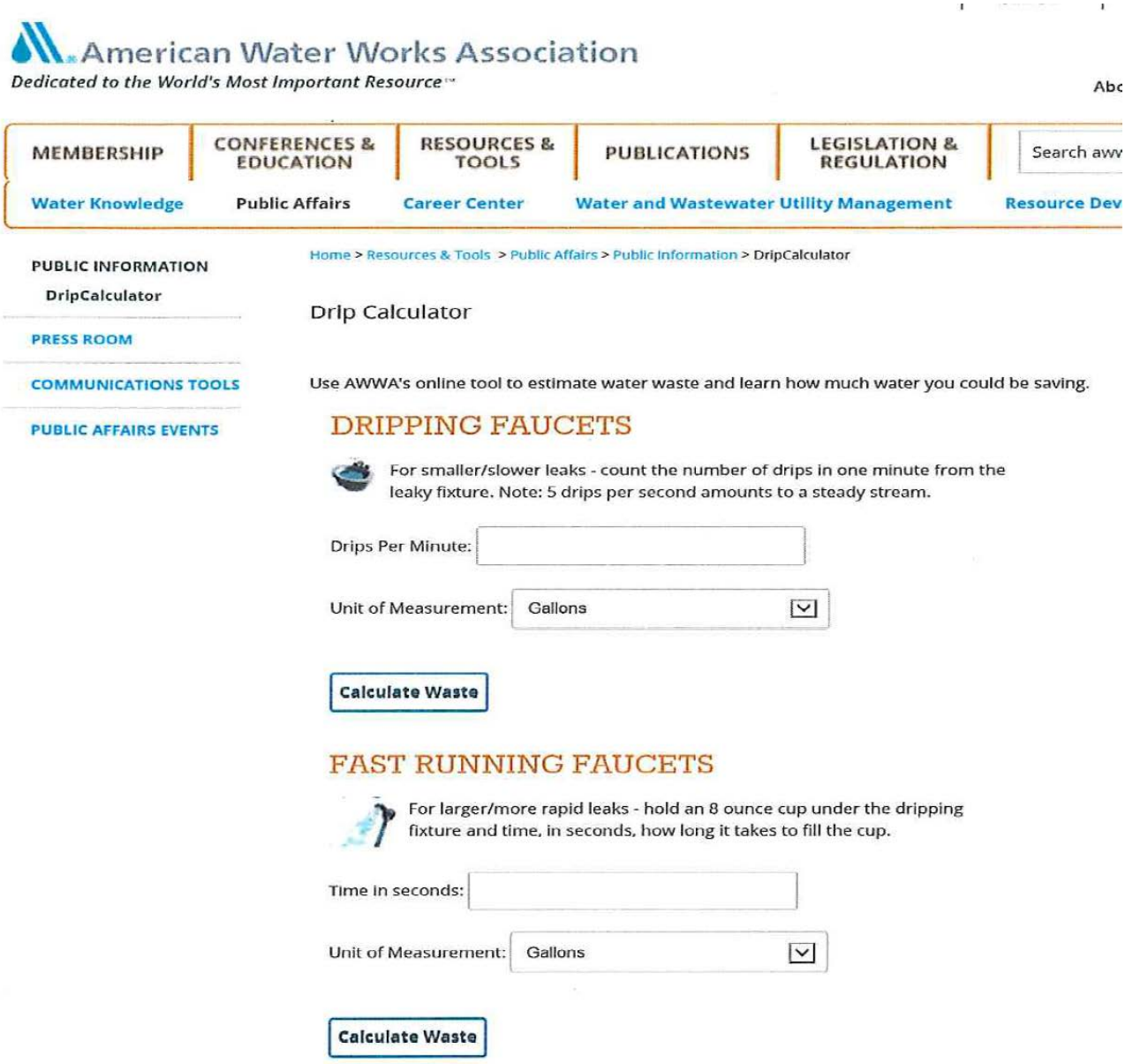
A leak of _____ per minute,	**wastes_____ gallons per month.**
1 pint	5,475
1 quart	10,950
½ gallon	21,900
1 gallon	43,800
3 gallons	131,400

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

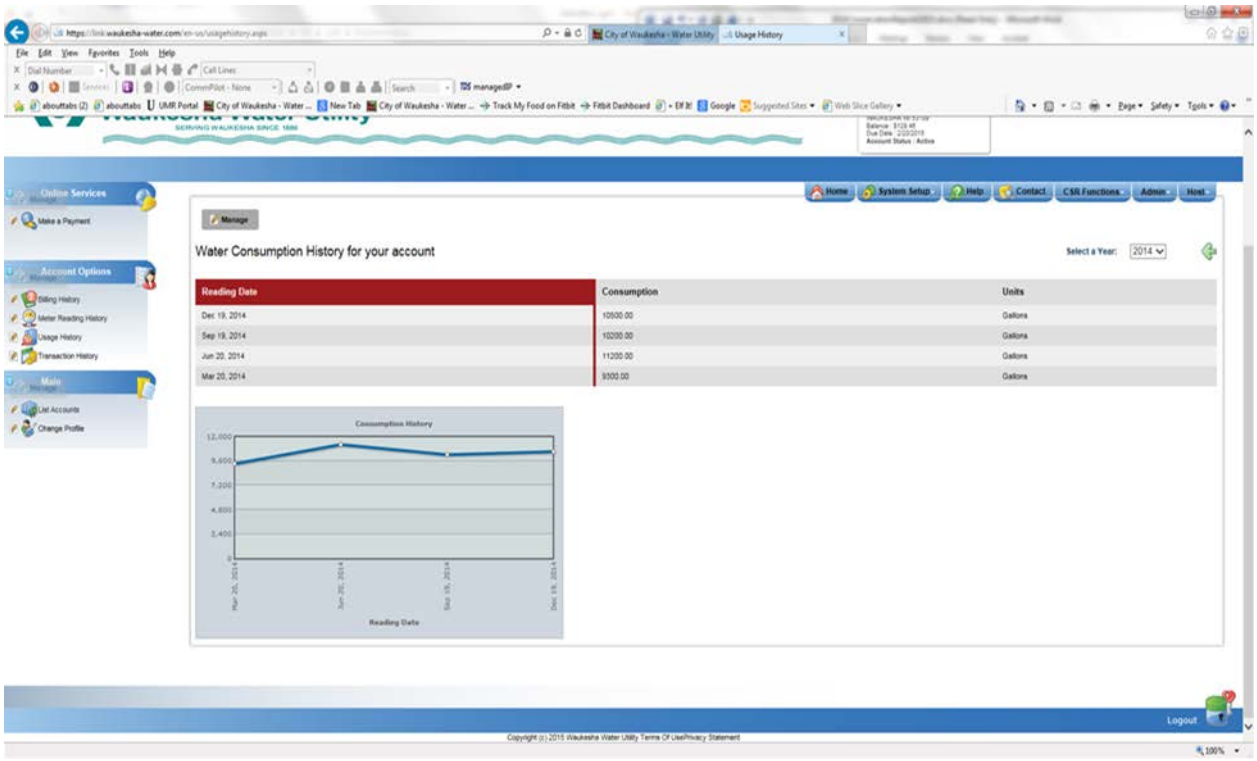
Along with a link to American Water Works Association's (AWWA) drip calculator – to calculate how much water is wasted on dripping and running faucets.



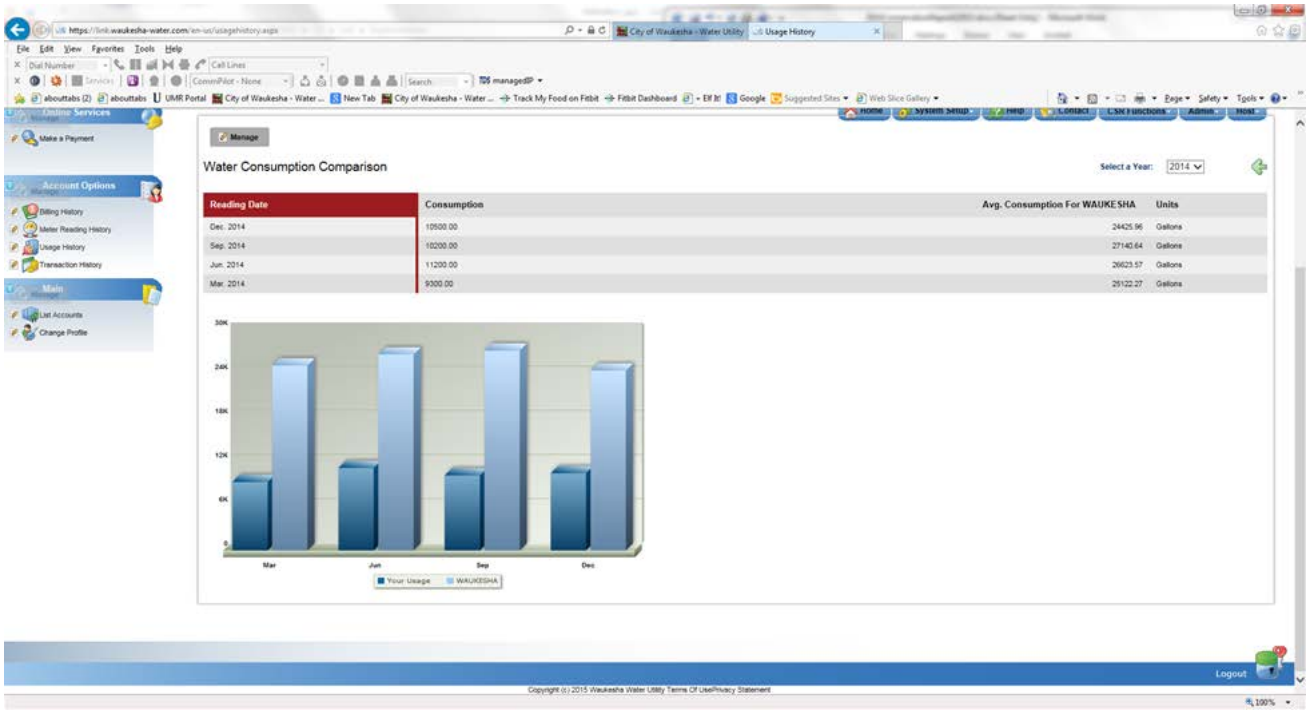
Link to AWWA's Drip Calculator

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

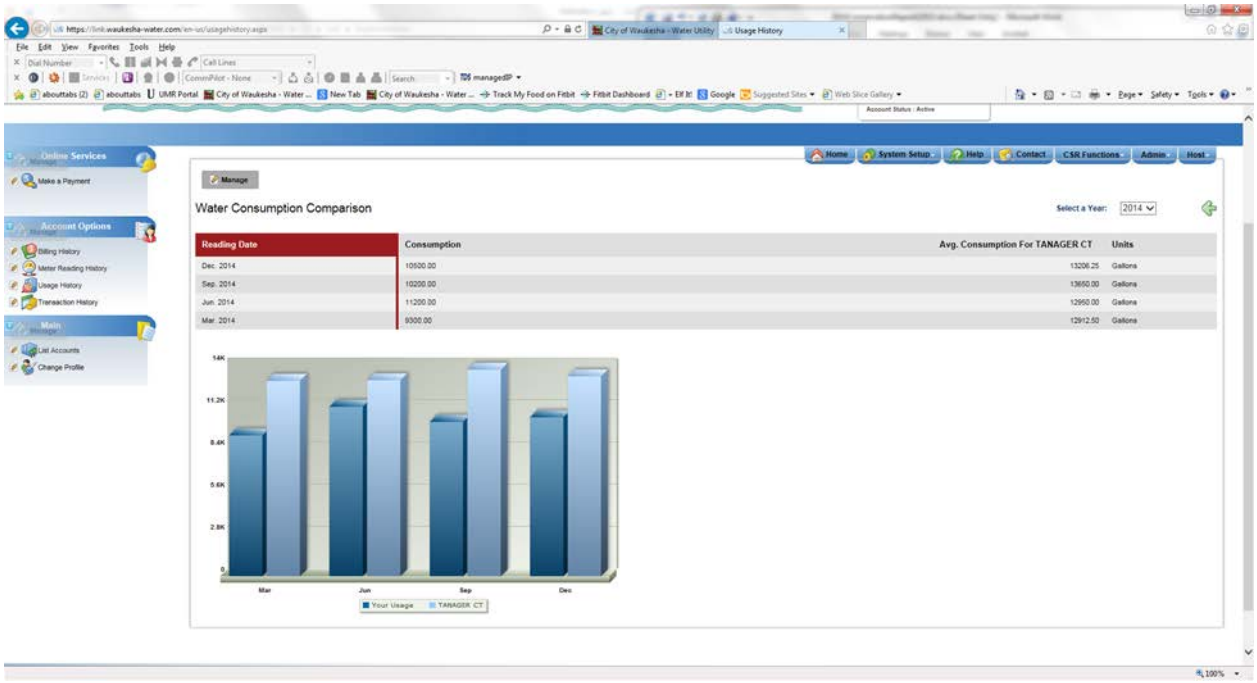
In 2014, the Utility installed Link, a system available to customers to pay their bills online. Integral to Link is the customer's ability to search transaction and consumption history. Now, a customer can compare their consumption across seasons.



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



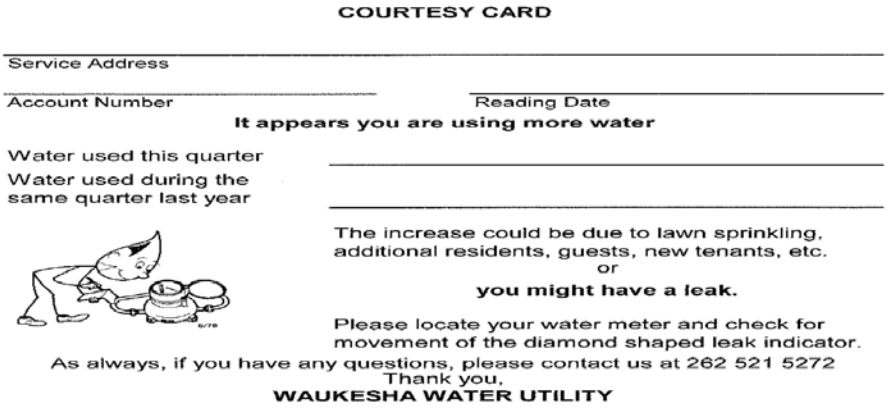
as well as to the neighbors on their street.



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

14. Leak Detection & Water Audit Program

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



COURTESY CARD

Service Address

Account Number

Reading Date

It appears you are using more water

Water used this quarter

Water used during the same quarter last year

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

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

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

Courtesy Card Notify Customers of a Possible Leak

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

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

In 2017, the Utility conducted 37 residential water audits and 9 data logging reports. The majority of the residential audits found that the high consumptions were related to toilet leaks. For the data logs, there were two large leaks. One of the leaks was related to a water softner issue at a large multi-family, and the other leak was related to an industrial account where a valve, that was not supposed to be open, was open and running to a drain.

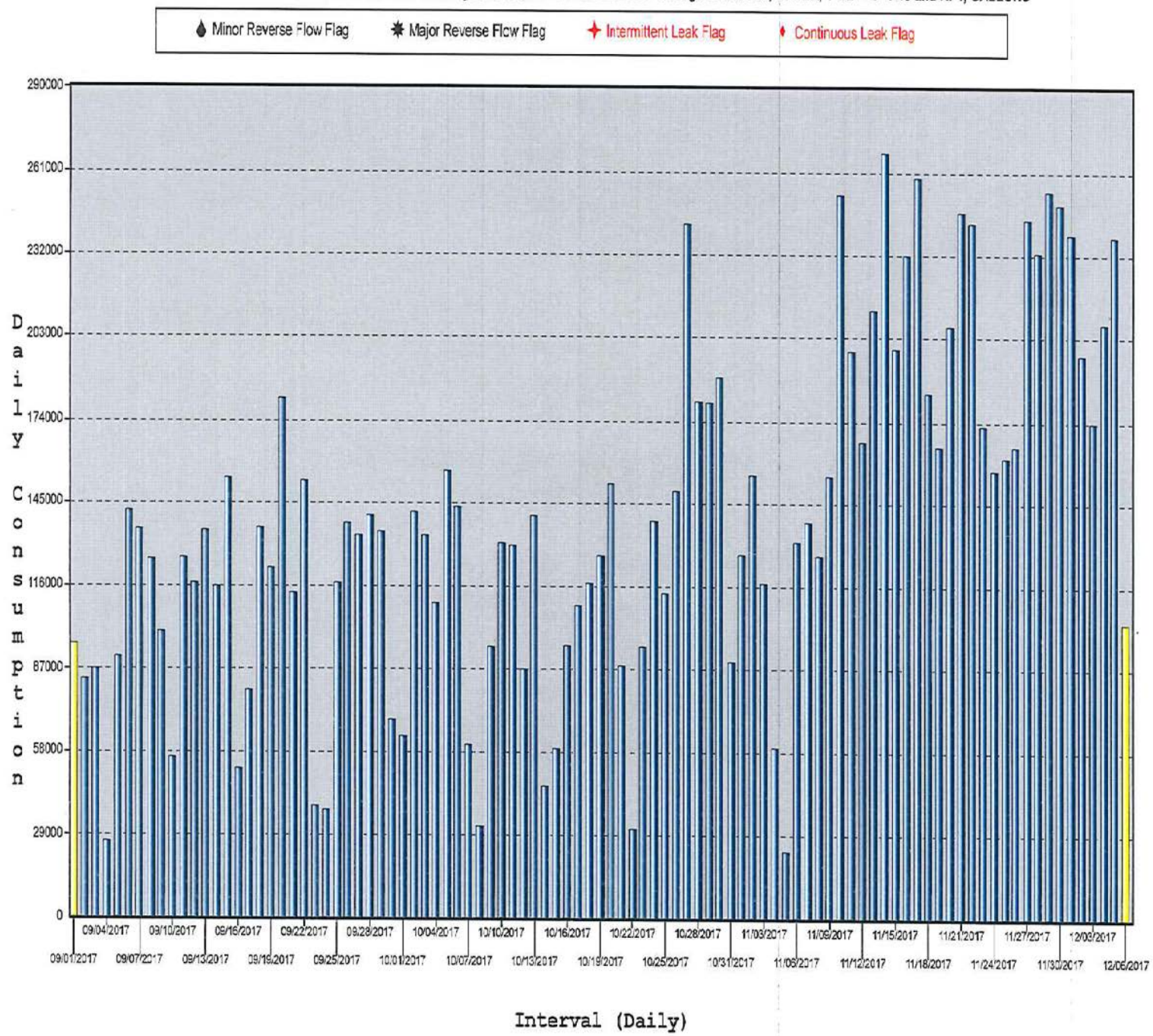
A copy of a data logging report is shown on the following page.

12/06/2017

Waukesha Water Utility

E-Coder R900i Data Logging Report

MIU#: 1545664690 Acct: Unknown Mtr #: 1545664690 Addr: [redacted] for 09/01/2017 through 12/06/2017, WATER, 1 1/2" - 4" T-10 and HPT, GALLONS



Neptune Technology Group 2017

*All time intervals are represented in standard time.

4.7.141111

Data Logging Report for a Large Customer Account

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

The Utility also educates its customers about the Audit/Leak Survey program through presentations. The Utility has given presentations to the Business Alliance, Rotary Club, Southside Business Council, Wisconsin Water Conservation Coalition, and the Utility's Conservation Stakeholders Committee. All of these groups have members from the commercial, public, and industrial sectors. The Utility also shares audit/leak information at all outreach events.

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

What is a Water Audit?

Businesses

Saving Water: It's just good business

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

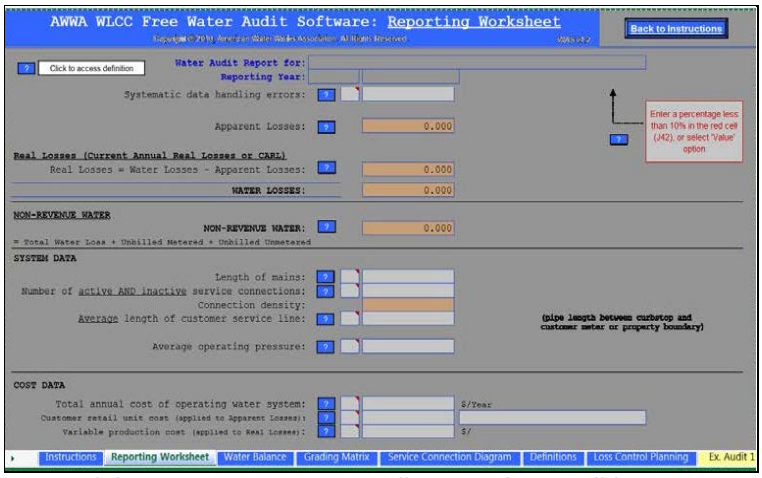
Water audits provide a way to inventory all water uses in your facility and identify ways to increase water use efficiency. The results can help you prioritize steps to implement cost-effective water-saving measures.

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

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

Information on the Utility's Website

A Link to AWE's Water Audit Process



A Link to AWWA's Water Audit Reporting Toolkit

15. Lateral Replacement Program for Water Runs

In 2017, the Utility replaced 4 water laterals and insulated 3 laterals that used to be residential water run accounts.

The City's Public Works Department scheduled a sanitary sewer/road resurfacing project on Oscar Street. The Utility knew that there were 6 – 7 water laterals, under this street, that have an issue with freezing and, at times, are placed on winter water runs.

The Utility worked with the City's contractor and had four shallow, copper water laterals, that were installed over the existing storm sewer in 1959, replaced with polyethylene laterals and had the laterals installed deeper.

In addition, the Utility also had the contractor insulate three other copper water laterals, on Oscar Street, by installing 2" thick foam boards between the water lateral and the storm sewer to help prevent the services from freezing.

Contractor Replacing Water Laterals Previously on Winter Water Runs

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

Waukesha Water Utility follows NR 852 Requirements. As a result, several educational programs have been adopted.

Tools:

The Education Programs use the following communication tools.

[X] Website

[X] Bill Stuffers

[X] Local Newspaper

[X] Public Outreach & Community Meetings – 93 hours

[X] School Programs

[X] Other: Street Signs

[X] Other: Yard Signs - Brown Lawn Campaign

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

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

[X] Other: Brochures / Bill Inserts

[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

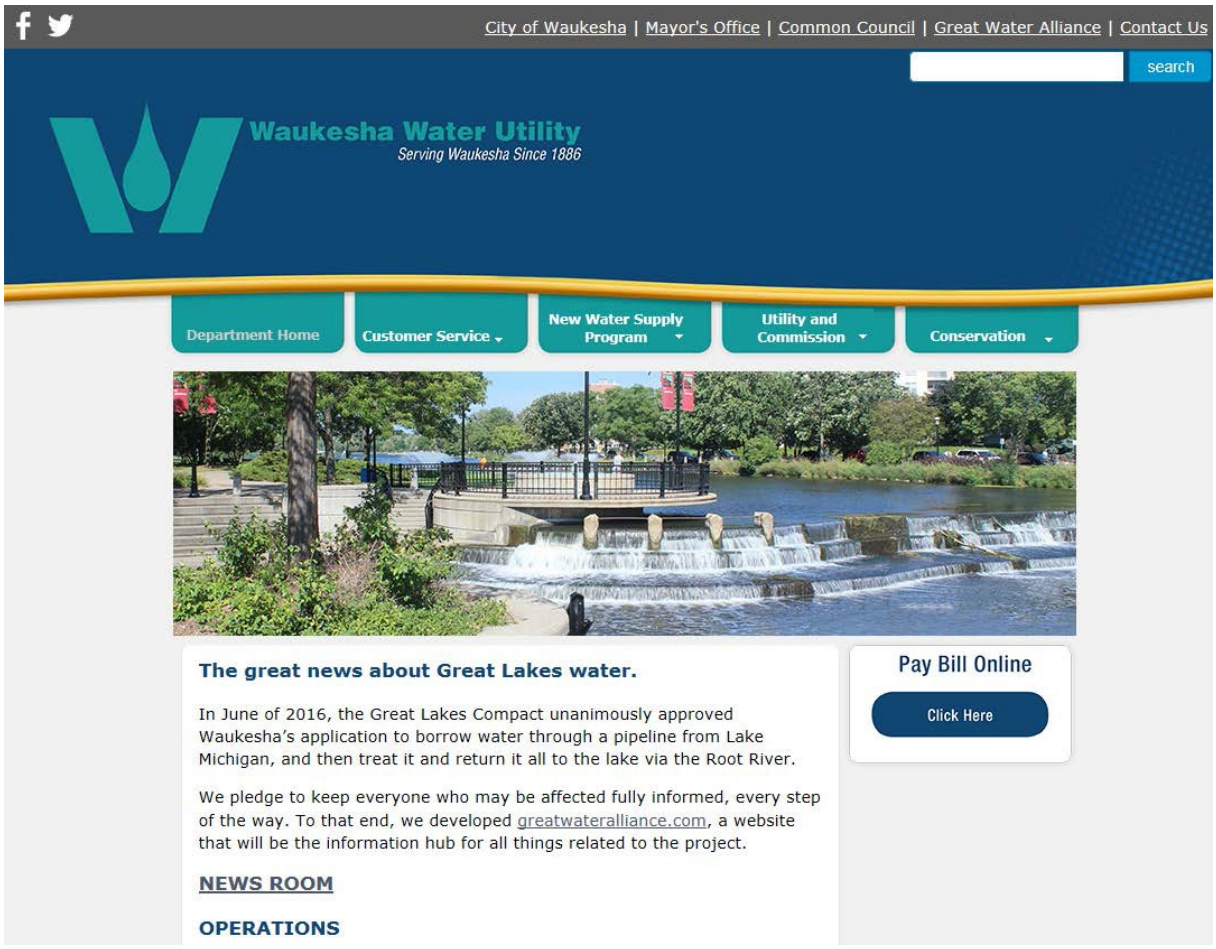
[X] Other: Public Service Announcement (TV 25)

[X] Other: Public Service Announcement (Marcus Theater Sponsorship Commercials)

A. Education Programs

In addition to the education that has already been discussed throughout this report, the Utility also implemented the following educational programs in 2017:

1. Social Media
2. Advertisement for the Toilet & Shower Head Rebate Program
3. Irrigation Ordinance Bill Insert
4. EPA WaterSense's National Fix a Leak Week
5. National Drinking Water Week/Rain Barrel Rebate Announcement (New in 2017)
6. Tips on How to Prevent Frozen Pipes



1. Social Media

In 2015, Waukesha Water Utility created a new website making it more user-friendly, organized, and attractive. This new website is continuously updated and allows customers to easily find information about water conservation and other topics (as previously shown).

In addition to using the Website, the Utility also uses Facebook and Twitter to keep customers up to date on conservation news, tips, and incentives.

2. Advertisement of the Toilet & Shower Head Rebate Program

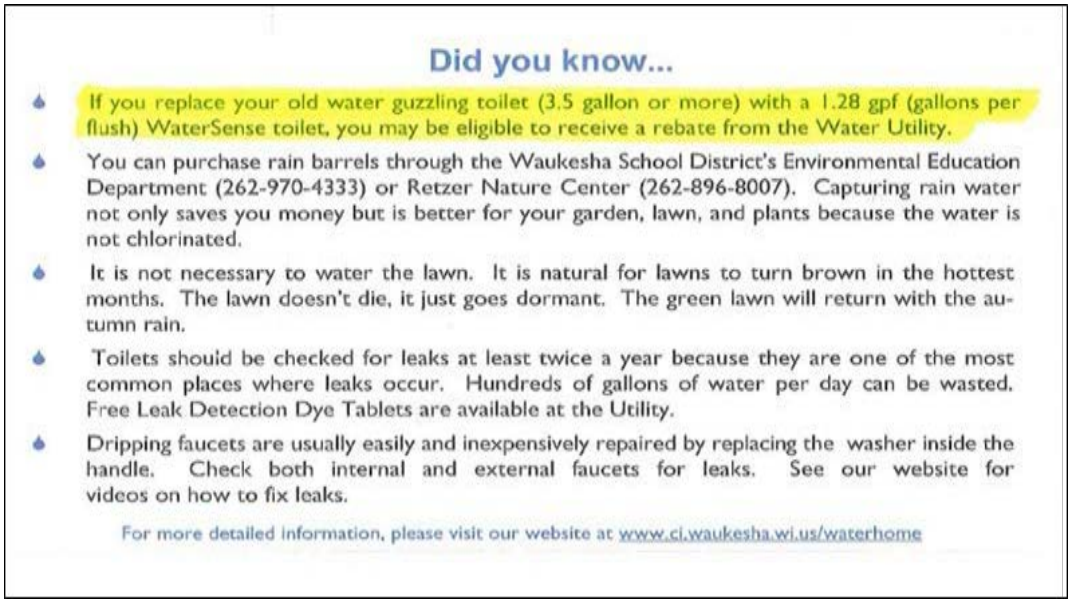
The Utility has publicized the toilet & shower head rebate program in the following ways: messages on bills, bill inserts, ads placed in the City Park & Recreation's Activity Guide, and rebate applications on display with Home Depot, local plumbers, and in the Utility's customer service area. Information 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), 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"

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. (Since the shower head rebate was initiated in late 2016, and we used up the remainder of the stock for the 2017 bills, the shower head rebate information was unfortunately not included but was advertised other places).



Did you know...

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

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

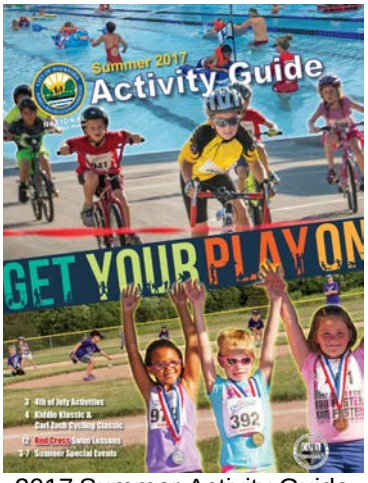
c. City's Park & Recreation Activity Guide:

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

Toilet Rebate Ad

Shower Head Rebate Ad

2017 Winter/Spring Activity

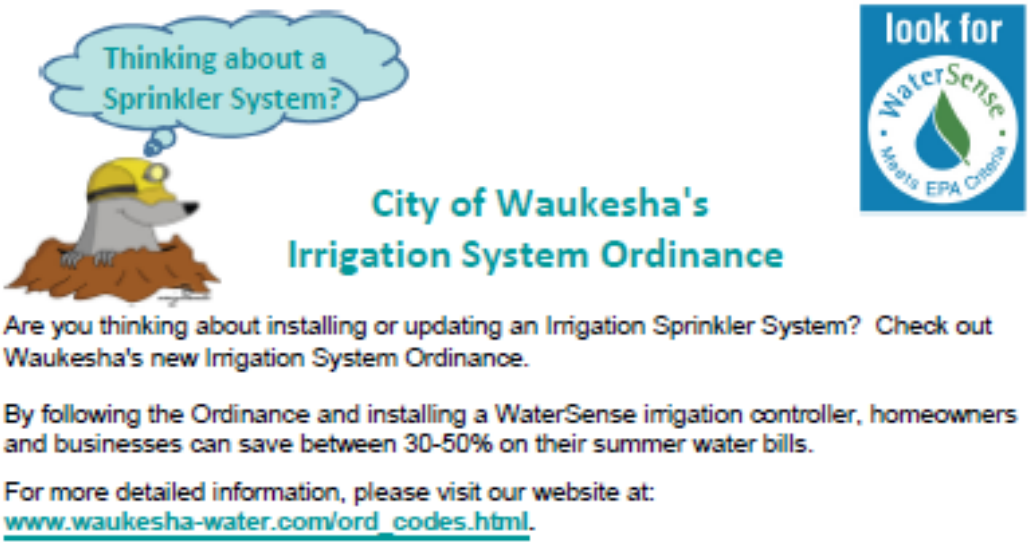


2017 Summer Activity Guide

2017 Fall Activity Guide

3. Irrigation System Ordinance Bill Insert

Bill inserts (as shown below) were sent out to all customer classes informing them of the new Irrigation System Ordinance.



The Utility continually shares the message that established lawns do not need to be watered. However, since some customers have sprinkler systems and are going to water their lawns, the Utility's Irrigation System Ordinance requires a WaterSense irrigation controller to help conserve water.

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

WaterSense®

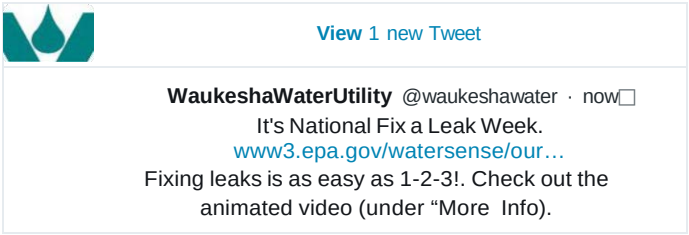
4. EPA's WaterSense National Fix a Leak Week

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 20th – March 26th 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."

- A message was sent out on our Twitter account.



- An Informational Sheet & Leak Detection Dye Tablets were available in the Utility's customer service reception area.

- A Press Release.

- Classroom Materials on our website that teach students to check for toilet leaks.

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

Fix a Leak Week

look for WaterSense

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 20-26, 2017.

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.

Identify & Fix Leaks

For your convenience, the WaterSense website (http://www.epa.gov/watersense/our_water/fix_a_leak.html) offers videos and tips not only on how to identify leaks, but also on how to fix leaks in toilets, faucets, showerheads, and outdoors. In most instances, leaks are easy to fix and you benefit by saving money!

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

For Immediate Release

March 22, 2017

For more information contact:
Mary Adelmeyer
(262) 409-4423

National Fix a Leak Week
March 20th-26th

Waukesha, WI – (March 22, 2017) – 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 Representative. "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 before 1994 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 up to $75 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 the 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.

Press Release for National Fix a Leak Week

Since 1886

Fix a Leak Week: Student Worksheet

Name:_____

Save Water & Money

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

Little Leaks Waste Big Amounts of Water

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

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

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

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

(Please continue on to page 2 →)

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

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

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

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

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

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

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

   Toilet #1 _____ Size _____ Make _____ Model

   Toilet #2 _____ Size _____ Make _____ Model

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

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

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

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

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

$100 Toilet Rebate

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

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

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

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

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

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

_____ Parent Signature _____ Date

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

5. National Drinking Water Week / Rain Barrel Rebate Announcement

May 7th – 13th, 2017 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 announced the new 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.

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

115 DELAFIELD STREET
WAUKESHA, WI 53188-3615

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

For Immediate Release

May 11, 2017
For More Information Contact:
Mary Adelmeyer, Customer Relations Representative
262-409-4423

Rain Barrel Rebate Program Begins During National Drinking Water Week

Waukesha, WI – As Mayor Shawn Reilly commemorates National Drinking Water Week with a Mayoral Proclamation, the Water Utility implements a new water conservation program for Rain Barrel rebates.

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

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

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

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

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

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 1993 toilets with 1.28 gpf Watersense toilets, as well as, a $25 showerhead rebate, 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;

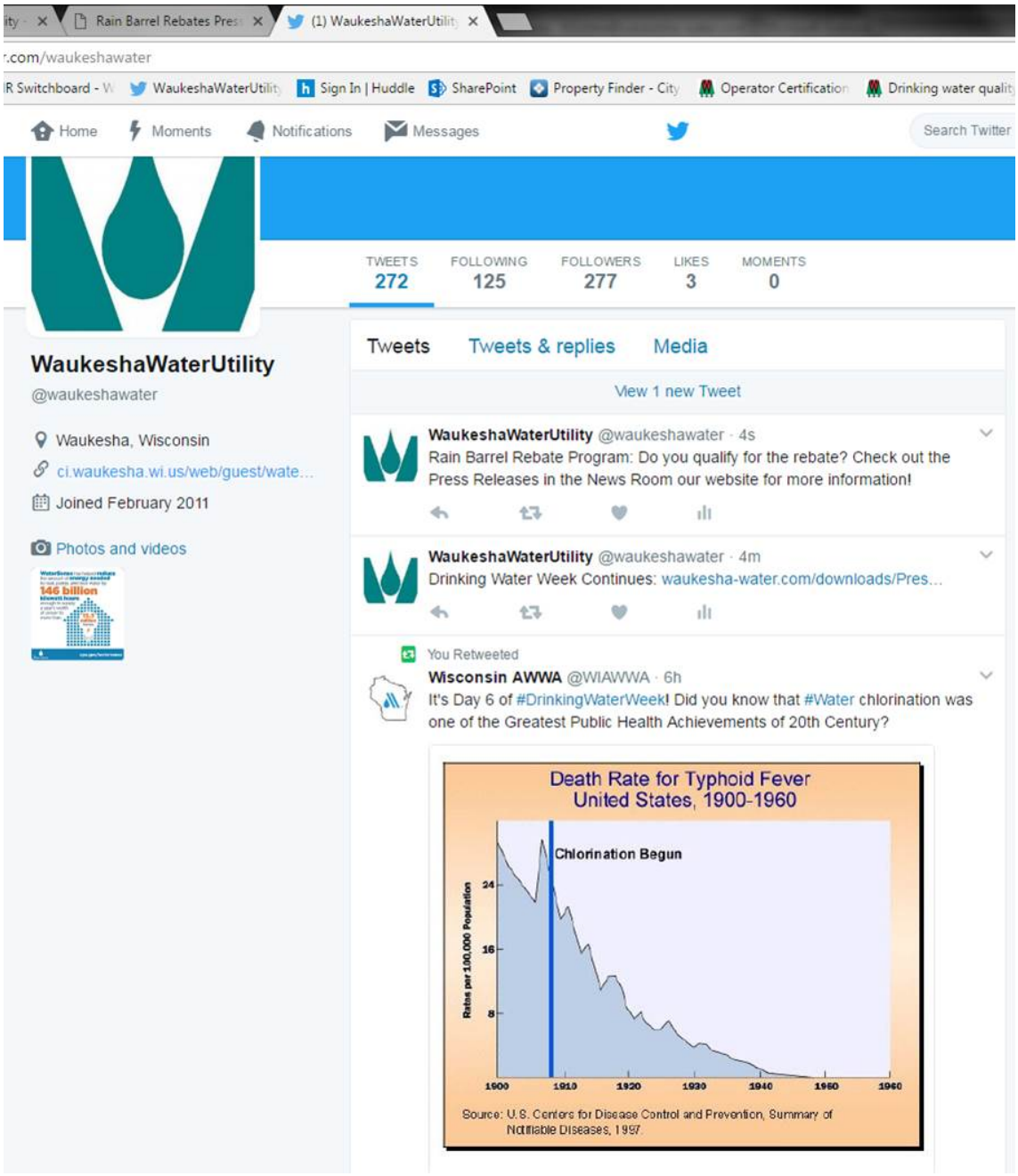
NOW, THEREFORE, as Mayor of the City of Waukesha, I hereby proclaim May 7th to May 13th 2017 as

DRINKING WATER WEEK

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

Signed this 5th day of May, 2017.

Shawn Reilly, Mayor
City of Waukesha



Three tweets were posted for National Drinking Water Week

6. 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 put the following 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.

For Immediate Release

Waukesha Water Utility

Press Release

Contact: Mary Adelmeyer
115 Delafield Street
Waukesha, WI 53188
Phone 262-409-4420
Fax 262-521-5265

Prevent Freezing Pipes

Waukesha, WI, December 2017 - 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.

B. Community Presentations & Public Outreach

In 2017, there were many community presentations and public outreach events that took place, including the following:

1. Breakfast Meeting for Community and Business leaders
2. Waukesha's Landlords Meeting
3. Environmental Fair & Water Panel
4. Home Improvement Workshop
5. Tour for Waukesha County Teachers and Administrators
6. 2 Local Beer Gardens/City Hall in Your Neighborhood Events
7. Presentations at Michigan's AWWA Conference
8. City Interdepartmental Meetings
9. Cool Choices – Non-profit Sustainability Program
10. 7 Open Houses pertaining to Waukesha's Future Water Supply
11. There is also a list of other presentations, meetings, and interviews that took place that we do not have pictures for.

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

1. Mayor's Celebrate Waukesha Breakfast

On a quarterly basis, the Mayor of Waukesha hosts a breakfast for all business and community leaders. The purpose of the breakfast meeting is to have all community and business leaders meet in one place so that everyone gets informed on important topics. The Utility's largest water customers are present at these breakfasts.

In March 2017, the Utility and their consultant, Greeley and Hansen, gave a presentation at the Mayor's Breakfast that updated everyone on the status of Waukesha's Application to borrow and return Lake Michigan water. In addition to the Application update, the audience was also reminded about the Utility's conservation and incentive programs, and was introduced to the Utility's new Great Water Alliance branding and program website. This new website is the information center that will keep the citizens and communities informed about Waukesha's future water source and pipeline project.

A copy of the Mayor's Breakfast Program Schedule is shown on the next page.

Mayor's Celebrate Waukesha Breakfast

Program Schedule
Wednesday, March 1, 2017
7:30 a.m. – 9:00 a.m.
Tuscan Hall, 409 Delafield St, Waukesha, WI 53188

1.	7:30 a.m.	**Breakfast Buffet**	
2.	8:00 a.m.	**Welcome**	Mayor Shawn Reilly
3.	8:10 a.m.	**City News and Announcements**	Kevin Lahner City Administrator
4.	8:15 a.m.	**Topic of the Day**	
		1. Introduction	Nicole Spieles, P.E., ENV SP Katie Richardson P.E. ENV SP Greeley and Hansen
		2. Special Speakers	Dan Duchniak, General Manager Kelly Zylstra, Technical Services Manager City of Waukesha Water Utility
5.	8:50 a.m.	**Final Thoughts**	
6.	Adjournment		

Thank you to the generous sponsors of our Mayoral Celebrate Waukesha Breakfast.

GREELEY AND HANSEN

Jess Fleur Fun LLC

Please Note: There may be a majority of Council Members attending this meeting.

Waukesha's Landlord Association Group – Some of the Members Were Unable to Make This Meeting

2. Waukesha Landlord Association Meeting

In March 2017, a member from the Waukesha Landlord's Association contacted the Utility and requested a presentation. They wanted an update regarding Waukesha's future water supply, information as to why Waukesha needs a new source of water, and what the landlords can do to help lower their water bills. The person requesting the presentation stated, "the landlords are very concerned about the increasing water rates because they will have to raise the rents in order to make up the difference."

Two representatives from the Utility met with Landlord's Association group for a question and answer period. The group was very inquisitive and had a lot of good questions. Most of their questions pertained to costs and timing of the rate increases. The Utility answered their questions and talked a lot about conservation – including the rebate incentives, finding and fixing leaks, the sprinkling ordinance, etc. The Utility also gave the landlords toilet leak detection dye tablets, sprinkling ordinance magnets, tips on how to conserve water brochure, and applications for the various incentives.

Utility's Conservation Booth at UW-Waukesha's Environmental Fair

3. UW-Waukesha's Environmental Fair & Water Panel

In April 2017, Waukesha Water Utility heard that the University of Wisconsin - Waukesha's Ecology Club was hosting an Environmental Fair & Water Panel with numerous local environmental organizations. The Utility contacted UW-Waukesha to ask if we could be included. The Utility participated by attending the water panel and having a booth focused on conservation.

The event was well attended by students, environmentalist, and the public. The Utility was able to talk with quite a few people about water conservation – especially in regards to the annual sprinkling ordinance, the Utility's conservation rebates, and how to find leaks.

A copy of the program flier is shown on the following page.

UW-WAUKESHA'S ECOLOGY CLUB PRESENTS

CLEAN WATER: THE NEW GOLD?

PANEL DISCUSSIONS ✧ FOOD ✧ ENTERTAINMENT

In response to growing concern of the quality of water, the UW-Waukesha Ecology Club, in collaboration with numerous local environment-based organizations, will be hosting two panel discussions based on the importance of water in Wisconsin and an Environmental Fair. The Environmental Fair will feature local non-profit organizations, artists, musicians, local organic/sustainable businesses, and family-owned farms from around Southeastern Wisconsin where people can learn about sustainable practices and become more environmentally active in their community. The panel discussions will focus on Wisconsin Groundwater, Inland Surface Water Systems, Water Policy, and the Great Lakes Compact. The event will be highlighted by dinner and keynote speaker, Guy Reiter, of the Menominee Tribe.

Featured panel speakers include Laurie Longtine of Waukesha Environmental Action League; Simon Belisie, Program Manager of the Great Lakes and St. Lawrence Cities Initiative; Skip Hansen of Central Sands Water Action Coalition; Marian Singer, CEO & Co-Founder of WellIntel; Ken Bradbury, Director and State Geologist of the Wisconsin Geological and Natural History Survey; Eric Hansen, Citizens Acting for Rail Safety; and Cheryl Nenn, Milwaukee Riverkeeper.

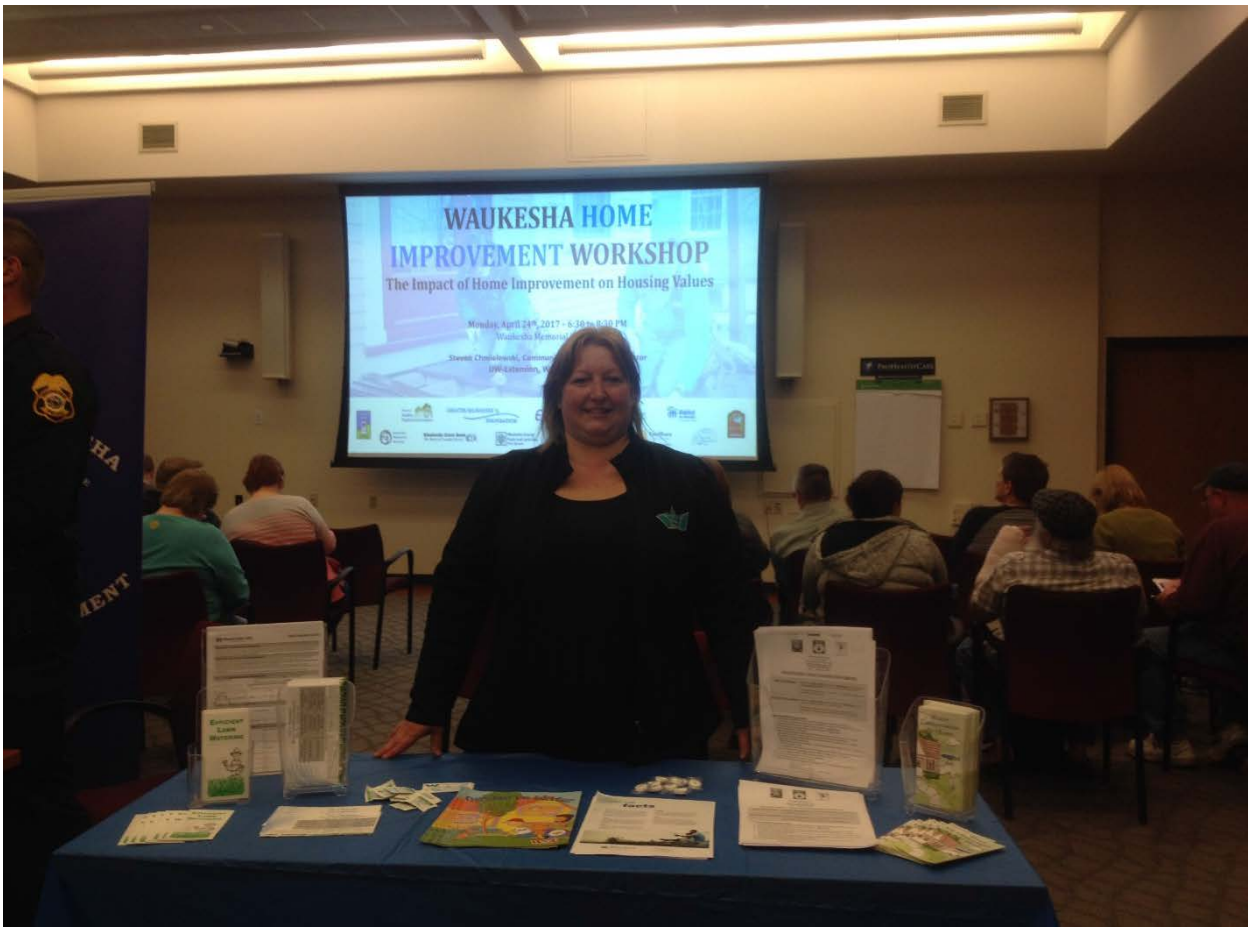
University of Wisconsin WAUKESHA

THURSDAY, APRIL 20, 2017 // 4:30 - 9:00 PM
OPEN TO THE PUBLIC
UNIVERSITY OF WISCONSIN-WAUKESHA
1500 N UNIVERSITY DR, WAUKESHA, WI 53188
HELD IN ROOM N133 & THE COMMONS AREA

Ticket price is based on donation.

All proceeds will benefit the Menominee Tribe.

Sponsored by UW-Waukesha Ecology Club, Climate Action Round Table (CART), Water Protectors of Milwaukee, Gaia Coalition Network, March for Science - Milwaukee, Milwaukee People's Climate Rally to Action, Milwaukee Environmental Connection (MEC), Earth Justice Ministry of First Unitarian Society of Milwaukee, Interfaith Earth Network, Southeastern Wisconsin Watersheds Trust (Sweet Water), Citizens Acting for Rail Safety (CARS), Waukesha Fox River Conservation Group / Southeast Fox River Partnership, Central Sands Water Action Coalition, Belfrē Kitchen, Peace Action Wisconsin, Riveredge Nature Center, Supermarket Legends, Waukesha County Environmental Action League (WEAL), Wisconsin Green Muslims, Midwest Advocates, Waukesha Green Team, & Compost Crusaders



Waukesha Home Improvement Workshop at Waukesha Memorial Hospital

4. UW-Extension's Home Improvement Workshop

In April 2017, the Utility partnered with the UW-Extension and the Department of Parks & Land Use for the *Waukesha Home Improvement Workshop*. This event was free and open to the public. It was held at Waukesha Memorial Hospital and funded by ProHealth Care and The Greater Milwaukee Foundation.

The purpose of the Workshop was to share information on *Strategies and Resources to Reduce Costs and Increase the Value of Your Home*. Waukesha Water Utility had a booth where people could ask questions and get information on water conservation. Our booth had information on Waukesha's sprinkling ordinance, efficient lawn watering techniques, rebate incentives for toilets and shower heads, information on ways to conserve water at home, finding and fixing leaks, water conservation activity/coloring books, and free leak detection dye tablets.

A copy of the program flier is shown on the following page.

WAUKESHA HOME IMPROVEMENT WORKSHOP

Strategies and Resources to Reduce Costs and Increase the Value of Your Home

Monday, April 24, 2017 – 6:30 to 8:30 PM
Waukesha Memorial Hospital (Trieber C1 & C2 Rooms)

Workshop Schedule

6:30 – Welcome

6:45 – Presentation: The impact of home improvements on housing value

7:15 – Meet directly with each agency representative to learn about available programs and resources

FirstWeber Realtors – The human side of real estate.
Habitat for Humanity of Waukesha County
Waukesha County Parks and Land Use Park System
Waukesha Water Utility
Dunbar Oaks Neighborhood Association
Housing Resources Inc
Tower Hill Neighborhood Association
UW Extension Southeast Wisconsin Master Gardeners
City of Waukesha
UW Extension Waukesha County
Waukesha State Bank – The Bank of Friendly Service

Home Repair Project Planning Resources

No to Low Interest Home Improvement Loan Product Eligibility

Housing Code Compliance

Safety and Desirability of Your Neighborhood

Incentives and Ways to Reduce Water Costs

Garden Question Resources and Answers

Waukesha County's Land Conservation Tour for Teachers & Administrators

5. Waukesha County Land Conservation Tour for Waukesha District Teachers

In July 2017, Waukesha County hosted a *Land Conservation Tour* for the Waukesha County K-12 teachers, administrators, public/private elementary and secondary schools. The purpose of the tour was to raise awareness of local resources related to the curriculum and to raise awareness of county-based programs and educational opportunities for staff and students.

A group of approximately 25 teachers toured the Retzer Nature Center and saw the new recycling and water exhibit area. In addition, they also toured Payne & Dolan's Limestone Quarry, the City's Wastewater Plant, the Utility Water Pumping Station, and Pewaukee Lake for aquatic invasive species.

When the group toured the Utility pumping station, they learned about where Waukesha's water comes from, how it is treated, the quality and quantity issues, conservation methods, cost of municipal water, and its value compared to bottled water.

The Utility presenter also talked about its partnership with the Waukesha School District and how all fifth graders get an educational tour of the pumping station so that they can learn about water and the importance of conserving this valuable resource.

The flyer advertising the Land Conservation Tour is shown on the next page.

2018 Land Conservation Teacher Tour

Waukesha County Department of Parks and Land Use

Prairie Springs Field Station, Genesee

4th Annual

Waukesha County Land Conservation Teacher Tour

Date: Wednesday, July 18

Time: 9am-3pm

Coach bus travel & box lunch included, no fee

Registration starts 8:30 am: Retzer Nature Center

S14 W28167 Madison St, Waukesha

Waukesha County's Land Conservation Tour Flyer

City Departments setting up booths in Rivers Crossing subdivision as part of the City Hall in Your Neighborhood Event

Water Utility's Conservation Booth at Bethesda Park

Utility's Conservation Booth at Rivers Crossing

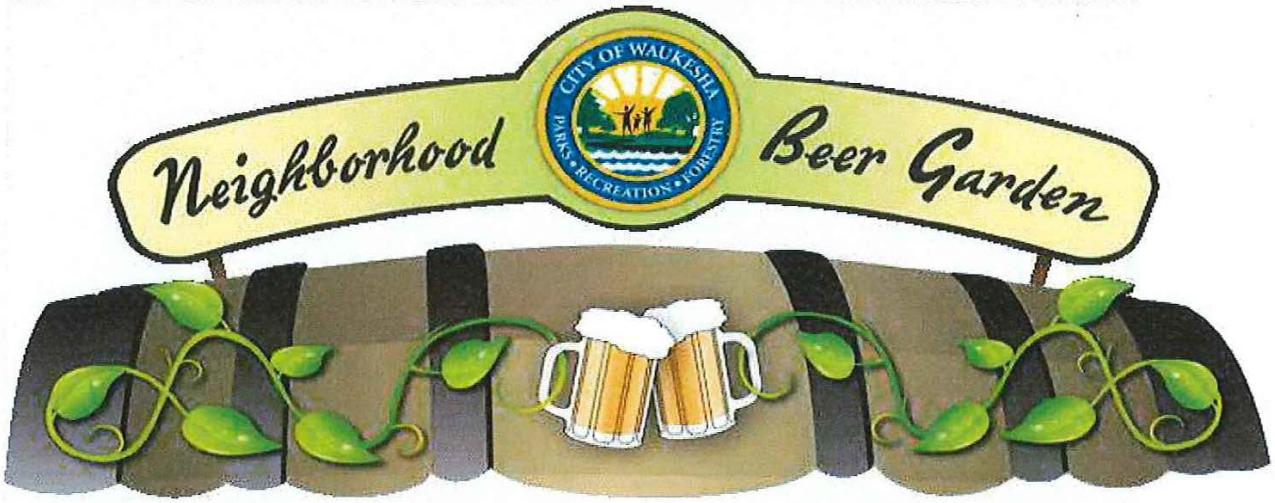
6. Two Local Beer Gardens & City Hall in Your Neighborhood Events

In August 2017, Waukesha hosted their first Neighborhood Beer Gardens. The first weekend, the beer garden event took place at Rivers Crossing Park; and the second weekend at Bethesda Park. Both of the events were free and open to the public; and included Sprecher products, food, and live music.

On both of the Saturdays, the City also hosted the *Unity in the Community/City Hall in Your Neighborhood* event at the Beer Gardens. A number of City departments had information booths. The Utility's booth had information pertaining to water conservation – this included information on rain gardens, rain barrels, toilet and shower head rebates, leak detection tablets, *My Brown Lawn is Green* signs, tips on how to conserve water, and conservation activity/coloring books for kids.

The brochure advertising Waukesha's Neighborhood Beer Gardens is shown on the following page.

Waukesha Neighborhood Beer Gardens



Waukesha Neighborhood Beer Gardens will take place Thurs., Aug. 17 through Sun., Aug. 20, 2017 in Rivers Crossing Park, 3703 Rivers Crossing Dr., and Thurs., Aug. 24 through Sun., Aug. 27, 2017 in Bethesda Park, 560 Dunbar Ave. Neighborhood Beer Gardens will offer Sprecher Brewing Co. products, food, and live music throughout the weekend. The event is free and open to the public with no entrance or parking fees.

Please be aware that dogs are prohibited in City parks, unless otherwise designated (such as the trail/pathway at Bethesda Park with dog(s) on a six foot leash).

Waukesha Neighborhood Beer Gardens Hours

Rivers Crossing and Bethesda Parks
Thurs./Fri., 5:00 to 9:00 p.m.
Sat,/Sun. 11:00 a.m. to 9:00 p.m.

Free entertainment

Waukesha's Beer Gardens & City Hall in Your Neighborhood Events

Dan Duckniak & Kelly Zylstra – Two Presentations at Michigan's AWWA Conference

7. Michigan's Section of AWWA's Conference

In September 2017, Dan Duchniak, the Utility's General Manager, and Kelly Zylstra, the Utility's Operations Manager, both gave separate presentations at Michigan's Section of AWWA's Conference.

Kelly gave a presentation entitled *Waukesha's Water Quality Balancing Act: Increasing Standards for Radium and Declining Groundwater Levels*.

Dan Duchniak presented with the Utility's consultant, Nicole Spieles from Greeley & Hanson, on *Waukesha's Diversion: Great Lakes Panel Analyzes this Historic Decision*.

Both of these presentations talked about Waukesha's Application review process and Waukesha's conservation programs and incentives. Due to misinformation provided, Michigan stakeholders were not informed that water conservation is important to the city of Waukesha; and that Waukesha already has conservation programs. Therefore, water conservation was a huge, important component of Dan's and Kelly's presentations.

Copies of the Conference Preview, showing the schedule for Kelly & Dan's presentation's, are shown on the following pages.

MI-ACE 2017 » *Conference Preview*

4:15 PM
2.6 History of the Water Taste-Off
Presenter: Gary Wozniak, DEQ
Since 1985, (32 years!) the Michigan Section has sponsored a Water Taste-Off. The history of the contest with past winners, surface vs groundwater, water quality specifics, past pictures, judges, trophy construction, will all be discussed.

4:30 – 6:00 PM
Happy Hour in the Exhibit Hall

8:00 PM (weather permitting)
New! **Bonfire, hosted by the Young Professionals Committee**

Thursday, September 14, 2017

7:30 AM
Early Riser Continental Breakfast

7:45 AM
Section Business Meeting
John Willemin, MI-AWWA Chair

8:00 AM
MI-AWWA Section Update
Bonnifer Ballard,
MI-AWWA Executive Director

8:05 AM
Best Tasting Water in Michigan Trophy Presentation
Gary Wozniak and Dave Stinson,
Co-Chairs of Water Taste Off Committee

8:15 – 11:30 AM Morning Session Distribution Track A

8:15 AM
4.1 Sustainability and Water Piping
Presenter: Paul Hanson, DIPRA

8:45 AM
4.2 Water Meters or Meter Reading Technology – Which is More Important?
Presenter: Derek Clayton,
Johnson Controls

9:15 AM
4.3 Pre-Chlorinated Pipe Bursting Success
Presenter: Edwin Haapala, Charter Township of West Bloomfield;
Kristin Goetze, P.E.,
Johnson & Anderson, Inc.

9:45 AM Break

10:00 AM
4.4 Service Terminations – What you don't Terminate may Haunt you
Presenter: Dan Sorek, P.E., Prein&Newhof

10:30 AM
4.5 Asset Management Planning – A Tool for Long Term Rate Stability
Presenter: Carrie Ricker Cox,
Oakland County Water Resource Commissioner's Office; Sally Duffy, HRC

11:00 AM
4.6 Establishing an Antenna Management Program
Presenter: Keith Dixon, Esq.,
Dixon Engineering, Inc.

8:15 – 11:30 AM Morning Session Water Quality Track B

8:15 AM
5.1 Prevention of Disease and Injury Associated with Building Water Systems
Presenter: Allison Yee, NSF International
Andrew Ward, Building Water Health

8:45 AM
5.2 Identification and mitigation of risks associated with the presence of lead in water distribution systems
Presenter: Emily Tummons, Black & Veatch

9:15 AM
5.3 Waukesha's Water Quality Balancing Act: Increasing Standards for Radium and Declining Groundwater Levels
Presenter: Kelly Zylstra, Waukesha Water Utility

9:45 AM Break

10:00 AM
5.4 Benefits of a System-wide Tracer Test and Real-time Simulation for Enhanced Model Calibration to Target Water Quality Challenges
Presenter: Bryon Wood, HDR

10:30 AM
5.5 Define the Resource – New Methodologies for Efficiently Characterizing Aquifer Systems and Predicting Pumping Impacts
Presenter: Todd Feenstra, Tritium, Inc.

11:00 AM
5.6 A Facile Approach to Synthesize Iron Oxy-Hydroxide Nanoparticles for the Treatment of Lead in Water in Flint, Michigan
Presenter: Minal Jaisinghani,
Michigan State University

11:30 AM – 1:15 PM
George W. Fuller Luncheon (ticketed)

1:30 – 4:45 PM Afternoon Session Water Treatment Track A

1:30 PM
6.1 The McCaysville Story: How to Rehabilitate a Filter in Seven Days
Presenter: Hollie Scott, AWI and Rich Baraki, AWI

2:00 PM
6.2 High-Rate Clarification Pilot Treatment Plant
Presenter: Kevin VanSickle, Genesee County Water & Waste Services

2:30 PM
6.3 Preventing Water Crises
Presenter: Alex Yavich, Optimization Solutions Environmental, LLC

3:00 PM Break

3:15 PM
6.4 Balancing Reliability and Cost-effectiveness of Water Transmission Infrastructure
Presenter: Ben Whitehead, Black & Veatch
Grant Gartrell, PE BCEE, Great Lakes Water Authority

3:45 PM
6.5 Transmission Main Condition Assessment in West Michigan
Presenter: Andrew Chastain-Howley, Black & Veatch ; Alex Fleet, City of Grand Rapids

4:15 PM
6.6 Oh Buoy! Building Monitoring Capacity Through Multi-Sector Partnerships
Presenter: Kelli Paige, Great Lakes Observing System

1:30 – 4:45 PM Afternoon Session
Data Management Track B

1:30 PM
7.1 Practical and User Friendly GIS and Work Order Software is Key to the Successful Implementation and Operation of Asset Management Plans
Presenter: Frank LaPierre, Wightman & Associates, Inc. and Ryan Miller; Wightman & Associates, Inc.

2:00 PM
7.2 Innovative Applications to assist with Managing your Water Quality
Presenters: Dan Stickel, Waterford Township and Jack Brusewitz, Aquasight

2:30 PM
7.3 Utilities: Under Constant Attack
Presenter: Charles Parker, II, Thomas Edison State University

3:00 PM Break

3:15 PM
7.4 Clouds & Things: The implications of Cloud and Internet-of-Things for SCADA/ICS
Presenter: Mitch Dobson, Tetra Tech

3:45 PM
7.5 Water Security Panel Discussion
Presenter: Kevin Morley
American Water Works Association

6:00 PM
A Night of Improv Comedy (ticketed)

Friday, September 15, 2017

7:30 AM
MI-AWWA Board of Directors, Council and Committee Leadership Breakfast (by invitation only)

7:30 AM
Early Riser Continental Breakfast
Closing General Session

8:00 AM
8.1 MDEQ Regulatory Update

8:30 AM
8.2 Waukesha's Diversion: Great Lakes Panel Analyzes this Historic Decision
Presenter: Nicole Spieles, P.E.,Greenley-Hanson
Dan Duchniak, Waukesha Water Utility
Grant Trigger, RACER Trust

9:30 AM
8.3 Intertwined... Water, Wastewater, and Energy!
Presenter: Thomas Fishbaugh, Rural Community Assistance Program (RCAP)

10:00 AM
8.4 Creating a Water Safety Net
Presenter: Patrick Gubry, EcoWorks

10:30 AM
8.5 Water Utilities and Their External Impacts; the Social Cost and What Can Be Done
Presenter: Adam DeYoung, Moore & Bruggink

11:00 AM
8.6 News from the Field

SPECIAL EVENTS

GOLF

Annual Golf Outing
(ticketed event – additional fees apply)

The MI-AWWA Annual Golf Outing will be held on Tuesday, September 12 at Shanty Creek's Cedar River Course. Designed by PGA player and architects, Tom Weiskopf, Cedar River was named one of America's Top 100 Resort Golf Courses by Golf Week.

This year, the Annual Golf Outing raises money for Safe Water Ecuador (SWIE) and for the new One AWWA Operator Scholarship. SWIE helps bring clean, safe water to communities in Ecuador. The Scholarship is a new partnership between the Association and the Section to help provide support for operators seeking additional education and training.

Schedule of the Day

10:30 AM	Check-in at Bag Drop
11:00 AM	Picnic Lunch
11:50 AM	Game Rules at your Cart
12:00 PM	Shot Gun Start
5:30 PM	Outing concludes – next up...
7:30 – 9:00 PM	Dessert Reception in the Exhibit Hall

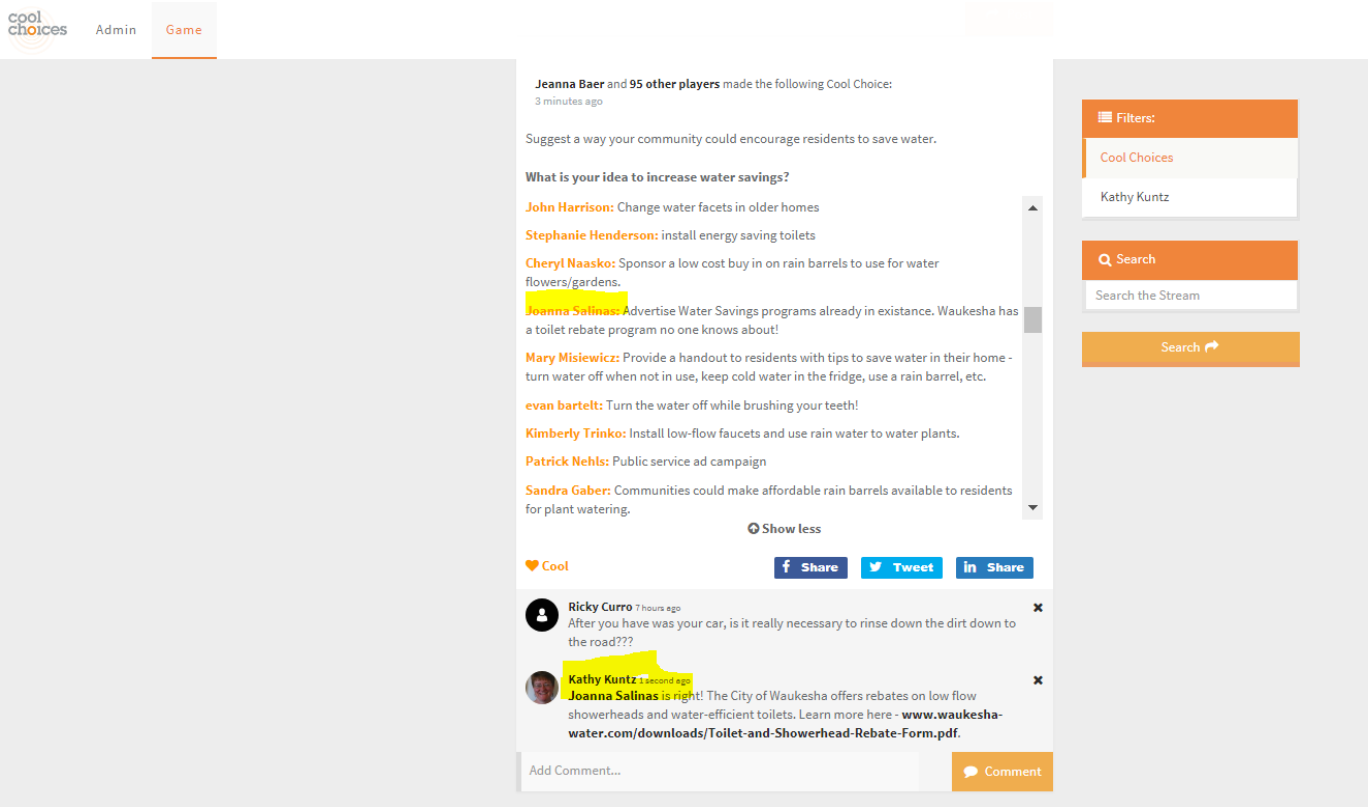
Event Features
(help raise money for the cause)
Putting Green – Practice your putt before the scramble starts (complimentary)
Driving Range – Warm up on the driving range (complimentary)
The Water Dive – A fun way to practice your aim and hit a straight shot into the kiddy pool ($5 per ball)
Mulligans - $1 for two shots (limit 2 per player)
Rent-a-pro – Have a golf pro take a shot for you off a predetermined tee ($5 per ball)
Prizes for longest drive, closest to the pin, best overall team, worst overall team, and more!
All are welcome. Space is limited!

Waukesha Water Utility hosted an Interdepartmental Meeting

8. 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 to get a department update.

In October 2017, the Utility hosted the "IN" meeting. Unfortunately, not every department was able to attend. However, for the ones that did attend, this was a first time that they had been to the Utility, and all attendees received information and give-aways pertaining to water conservation. The give aways included a magnet with the City's sprinkling ordinance, a rain gauge that promotes water conservation, leak detection toilet dye tablets, tips on how to conserve water brochure, a kids activity/coloring book, and rebate applications for toilets, shower heads, and rain barrels. In addition, the Utility gave a small presentation on how the find leaks and answered questions pertaining to the future water supply and conservation.



Cool Choices Social Platform – Promoting the Utility's Conservation Incentives

9. Cool Choices – A Non-Profit Sustainability Program

Waukesha Water Utility was notified by one of its consultants that they noticed an article in the Milwaukee Journal Sentinel that a non-profit group, Cool Choices, was working with companies in Waukesha to help employees save energy, water, and money. According to the article, "Cool Choices…implements fun and effective sustainability programs that motivate people to…save energy, water, and fuel – both at home and work (September 30, 2017)." The article went on to say that 28 companies in Waukesha county signed up for this program.

The Utility called Cool Choices and informed them about our water conservation programs. We referred the company to our website and told them about the incentive programs for Waukesha Water Utility customers. Cool Choice was glad we called. They did not know about our rebates and said they would provide a link to our conservation webpage.

On October 23, 2017, Cool Choice sent us an email saying that the Utility's "rebates got some spontaneous promotion in their Cool Choice platform….[they] were asking people for ideas to save water in their community and a participant talked about [the Utility's] rebates [and Cool Choices] shared a link."

A copy of Cool Choice's social stream, with the Utility's customer and Cool Choices mentioning Waukesha's rebates, is highlighted above.

10. Great Water Alliance 7 Open Houses

In 2017, the Great Water Alliance hosted 7 open houses, open to the public, regarding Waukesha's Great Lakes water diversion plan. Four of the seven open houses were local; and three of the open houses took place in communities potentially affected by Waukesha's pipeline routes.

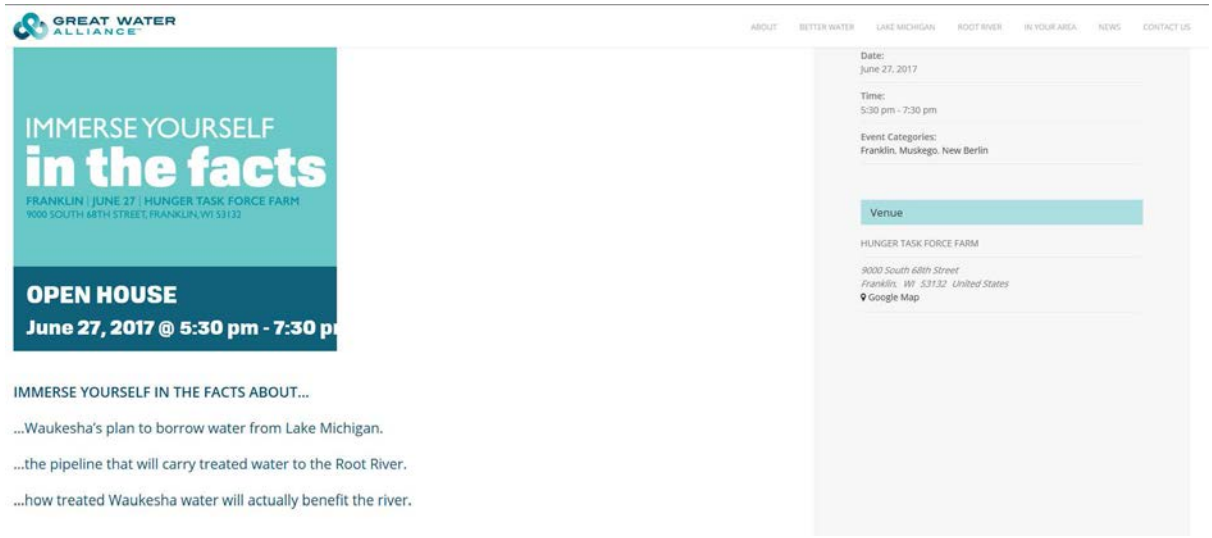
Open Houses for Communities Potentially Affected by Waukesha's Pipeline Routes

A. The First 3 Open Houses

The first set of open houses took place on June 27th, 28th, and 29th in Franklin, Muskego, and New Berlin.

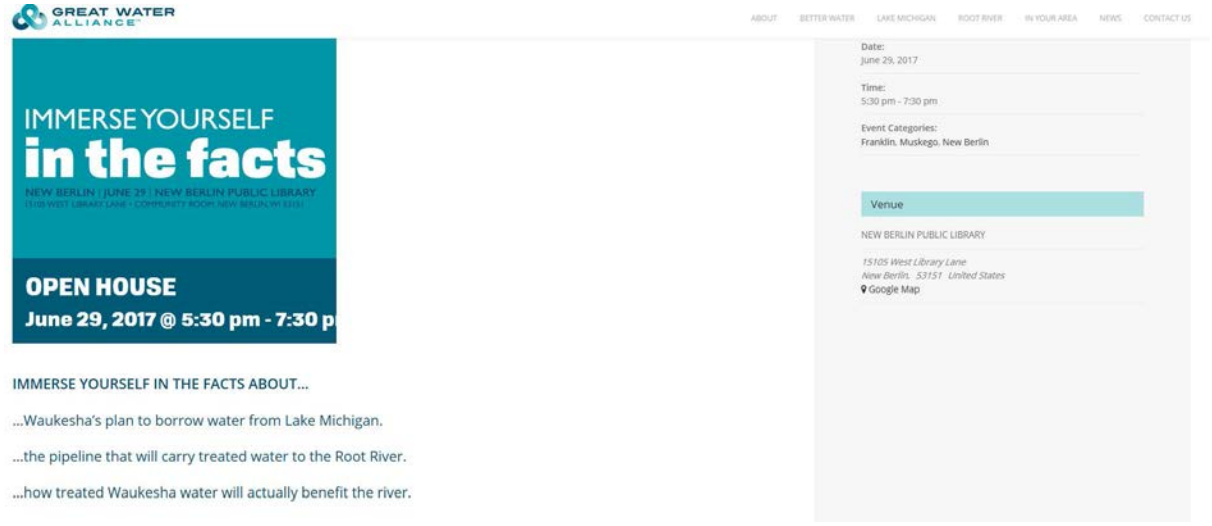
These three open houses included posterboards and information about Waukesha's plan to borrow water from Lake Michigan, the possible routes options for the pipeline that will carry the treated water to the Root River, and information on how Waukesha's treated water will benefit the river.

The advertisements, for these three open houses that were sent to every homeowner along the three Oak Creak routes and water return flow routes, are shown on the following page.



Advertisement for the Franklin Open House

Advertisement for the Muskego Open House



Advertisement for the New Berlin Open House

B. The Next Open House – Local

The next Open House occurred in Waukesha on September 6th at the Rotary Building.

Open House in Waukesha – at the Rotary Building

Rotary Building – Picture borrowed from the Freeman

The purpose of this open house was for Waukesha residents to get information and ask questions pertaining to Waukesha's future water supply and to view the proposed pipeline routes for the treated return flow. As the pictures above show, this open house was well attended.

Utility's Conservation Booth at Waukesha's Open House at the Rotary Building

In addition to the posterboards, the Utility also had a conservation table at this event, where people could get information about Waukesha's conservation programs and incentives.

A copy of the Announcement for the Open House, published in the Waukesha Freeman, is shown on the following page.

ANNOUNCEMENT: Waukesha is seeking citizen input at local open house »

WAUKESHA, Wis. (September 5, 2017) — On Wednesday, September 6, 2017, the Waukesha Water Utility will present detailed information to the public regarding the long-term, sustainable water supply solution for City of Waukesha, called the Great Water Alliance (GWA). During this open house, residents can review and discuss what it means for them, benefits of the project, and proposed pipeline routes.

"We encourage everyone to come at their convenience to learn more about this program to provide Waukesha's 71,000 residents with a reliable and sustainable supply of safe drinking water," said Mayor Shawn Reilly. "

The open house is scheduled for:
Wednesday, September 6, 2017
5:30 p.m. to 7:30 p.m.
Waukesha Rotary Building
1150 Baxter Street

The GWA program will carry fresh water from Lake Michigan, treat it, and return the same amount to the Great Lakes Basin. The open house will provide updates on this historic project, along with detailed maps of proposed pipeline routes and information on water quality.

"We want to hear from our community," said Dan Duchniak, general manager of the Waukesha Water Utility. "We encourage people to discuss this historic project with experts, ask questions, and provide comments as we move forward with project planning."

The City of Waukesha needs a long-term, sustainable alternative to its existing water supply. The aquifer which has been the City's primary source of drinking water has become depleted. This is due in large part to a layer of shale rock that restricts rainwater and snowmelt from recharging the aquifer, and has resulted in elevated levels of radium and other naturally-occurring contaminants.

The eight Great Lakes governors and two Canadian premiers who reviewed the Waukesha project concluded that Waukesha has no reasonable alternative to a Great Lakes water supply. Waukesha may access up to 8.2 million gallons a day of drinking water from Lake Michigan and return the same amount to the Basin. The project will construct a pipeline from the water source to Waukesha. After being used in Waukesha, a second pipeline will return treated water from Waukesha's Clean Water Plant to an outfall point in Franklin that empties into the Root River, ultimately flowing back to Lake Michigan. Construction is expected to begin in early 2020 with completion in 2023.

Announcement of Open House published in the Waukesha Freeman

C. 3 Other Local Open Houses

The next 3 open houses also occurred in Waukesha at the three local high schools.

On November 28th, 29th, and 30th, Great Water Alliance held open houses at Waukesha West, Waukesha South, and Waukesha North High School. These were the first open houses since the partnership between Waukesha Water and Milwaukee became official; and, once again, the open houses were well attended.

In addition to the posterboards and displays, Dan Duchniak, the Utility's General Manager, gave presentations about Waukesha's future water source, including information on why Waukesha needs a new source, the diversion application and approval process, costs, proposed pipeline routes, and information on the Utility's conservation and incentives programs.

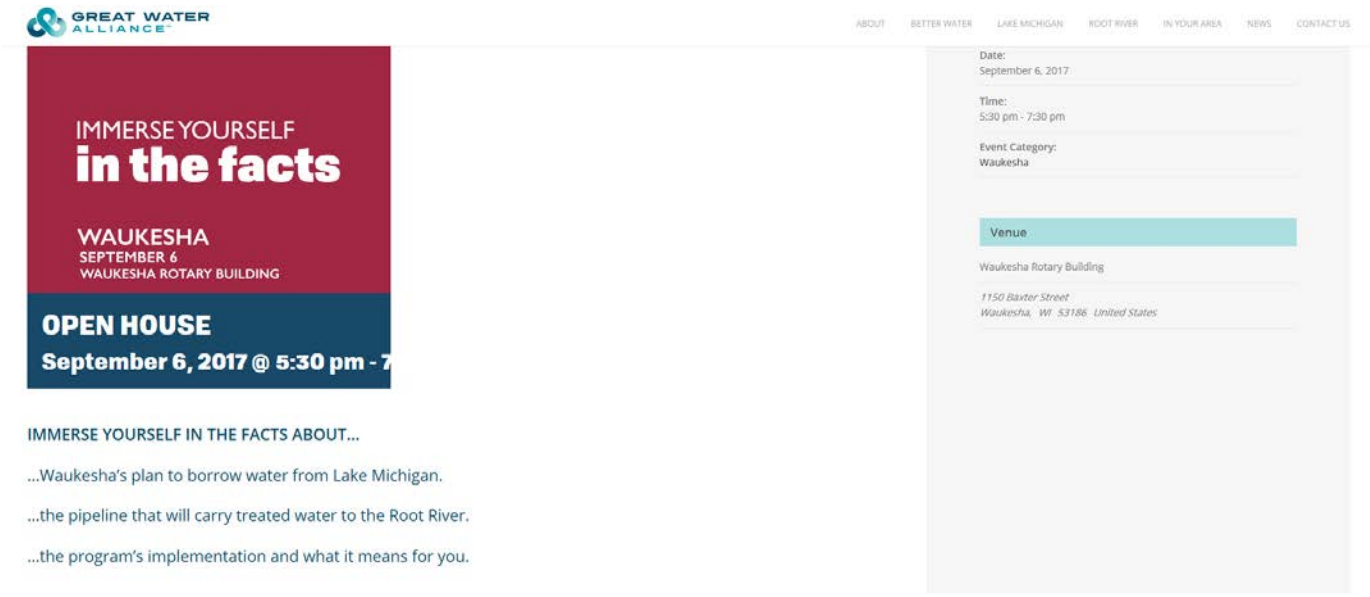
Waukesha West

Waukesha South

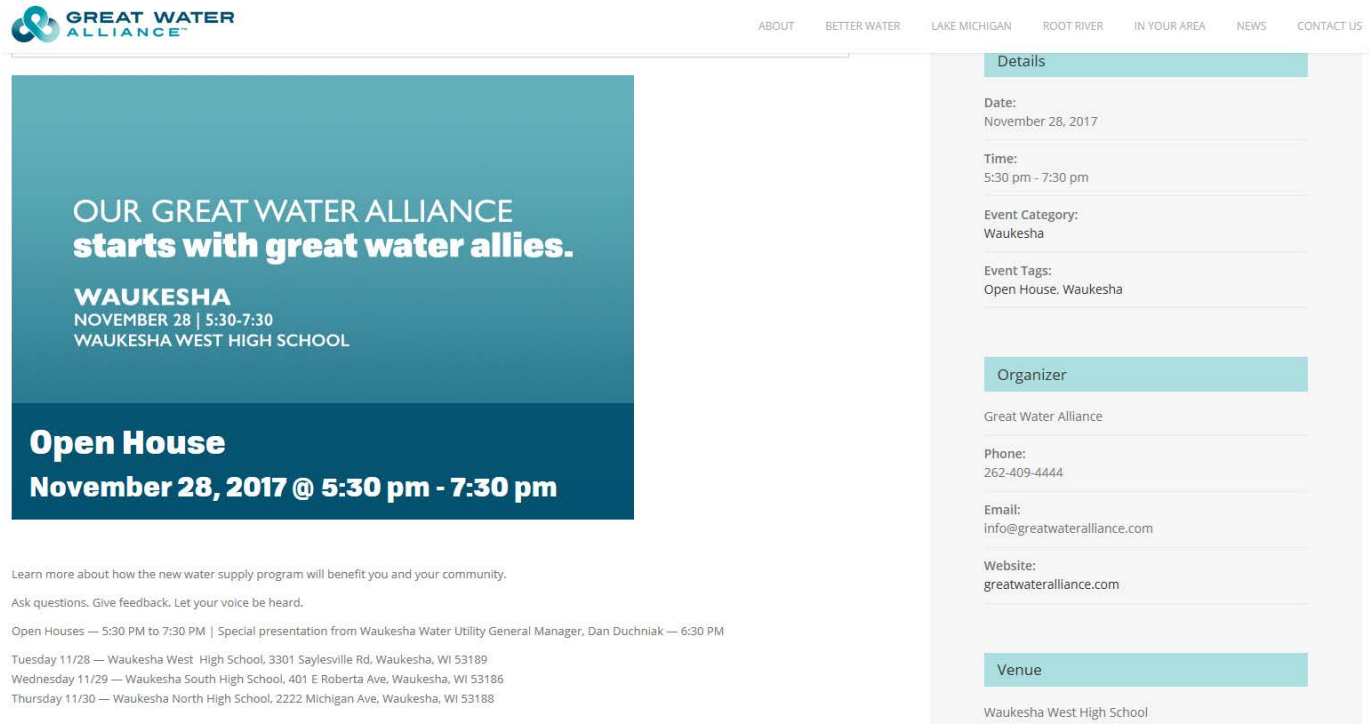
Waukesha North

The Utility also had a conservation table at all 3 of these local open houses for people to get information and ask questions.

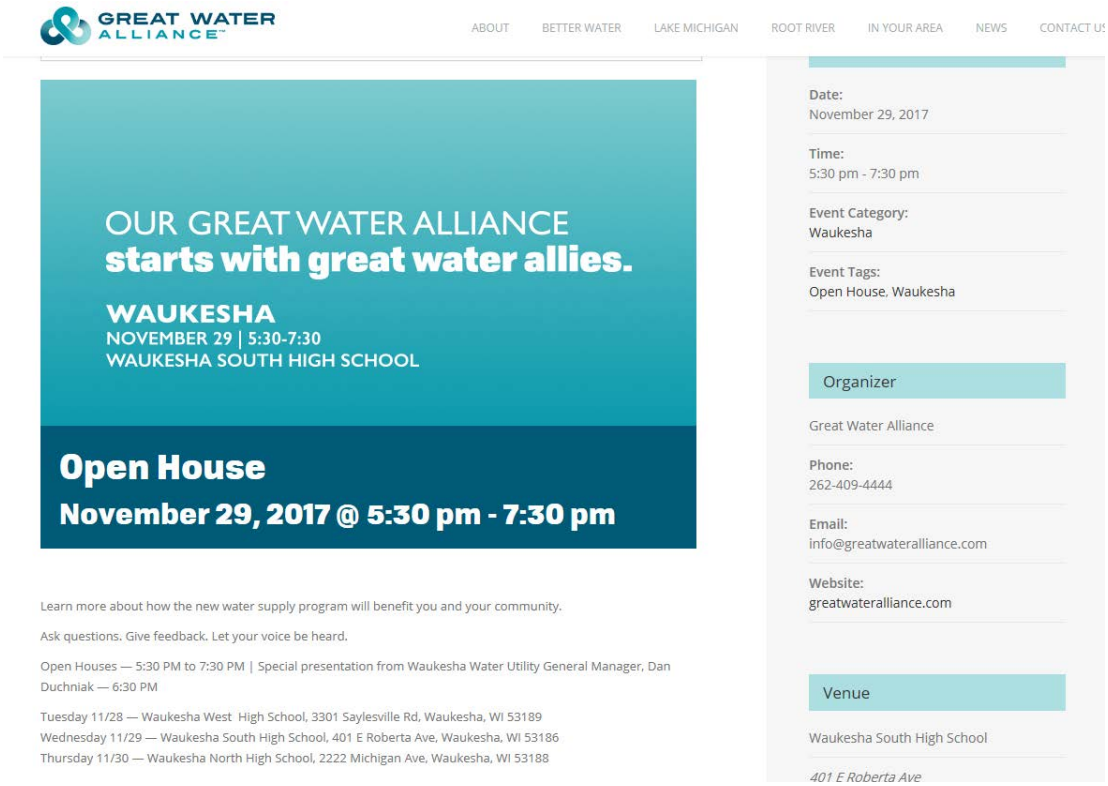
To inform people about Waukesha's open houses, post cards were mailed out to all Utility customers. A copy of the postcards for the Rotary and Waukesha High Schools' open houses, along with the Media Alert, and press release are shown on the following pages.



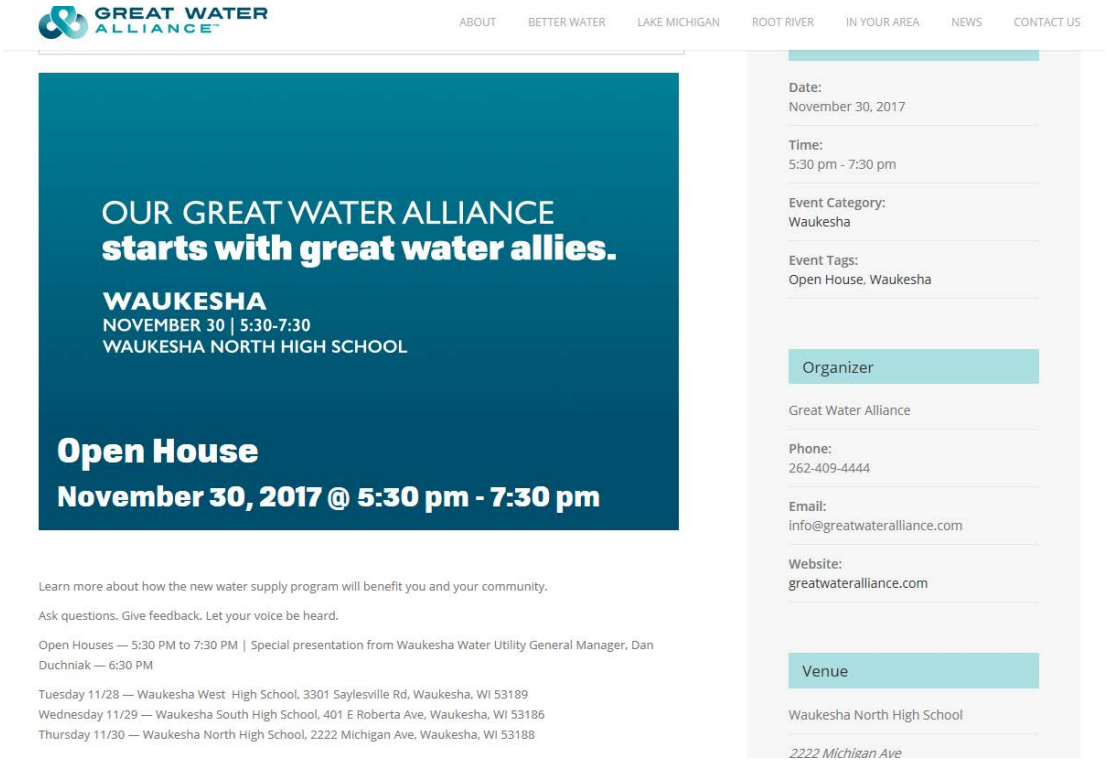
Waukesha Open House Advertisement ~ At the Rotary Building



Waukesha's Open House Advertisment ~ At Waukesha West High School



Waukesha's Open House Advertisement at Waukesha South High School



Waukesha's Open House Advertisement ~ at Waukesha North High School

MEDIA ALERT: GWA holds Open Houses in Waukesha Nov. 28, 29 & 30

WHO

- Dan Duchniak, General Manager of Waukesha Water Utility
- Project team members of the Great Water Alliance
- Residents and business leaders in Waukesha

WHAT

Waukesha Water Utility will hold three open houses to share the latest updates on the water supply program. Attendees will hear a presentation and be able to view in-depth program displays. Topics include the historic new partnership between Waukesha and Milwaukee and the proposed pipeline routes.

WHEN & WHERE

WAUKESHA:
Tuesday, November 28
Waukesha West High School – Media Center
3301 Saylesville Rd, Waukesha
5:30-7:30 PM

Wednesday, November 29
Waukesha South High School – Media Center
401 E Roberta Ave, Waukesha
5:30-7:30 PM

Thursday, November 30
Waukesha North High School – Media Center
2222 Michigan Ave, Waukesha
5:30-7:30 PM

WHY

The Waukesha open houses provide an opportunity for residents to learn more about the Great Water Alliance program, ask questions, and give feedback.

MORE INFO:

About the Great Water Alliance
The Great Water Alliance will provide the City of Waukesha's citizens with a safe, sustainable, and environmentally responsible source of drinking water. The Great Water Alliance also is a model for regional cooperation among neighboring communities. Sign up to stay informed of program updates.

FREEMAN: Water Utility holds first of open house series at West High

Waukesha Freeman
Nov 28, 2017
Freeman Staff

Waukesha — Today, Waukesha West High School will host the first of three open houses this week. All are open to the public and are the first information sessions since Waukesha officials announced their water partnership with Milwaukee late last month.

Waukesha Water Utility General Manager Dan Duchniak will be at all three meetings this week to answer questions about the latest updates to the water supply project, including the contract between Milwaukee and Waukesha that gained approval from committees in both cities and will be discussed by Milwaukee's full Common Council this morning and Waukesha's council on Dec. 5.

Members of the Great Water Alliance team, which has helped steer the Waukesha Water Utility and works to bring the public up to speed with the water deal, will offer a presentation and in-depth displays at all three open houses. Waukesha's $286.2 million water diversion project is expected to double or triple water rates in the coming years. About $40 million was saved by choosing Milwaukee over Oak Creek for water.

The meeting dates, locations and times are as follows:

- Today: Waukesha West High School, Media Center;
  3301 Saylesville Road from 5:30 to 7:30 p.m.
- Wednesday: Waukesha South High School, Media Center;
  401 E. Roberta Ave. from5:30 to 7:30 p.m.
- Thursday: Waukesha North High School, Media Center;
  2222 Michigan Ave. from 5:30 to 7:30 p.m.

Press Release for Waukesha's Open Houses

11. Additional Public Outreach, Presentations, Interviews, & Meetings:

Additional public outreach, presentations, meetings, and interviews in 2017 are listed below. The topic of conservation is an integral part of every meeting/presentation.

- AWWA ACE Conference
- Caledonia Town Officials
- Construction Managers Association, Presentation
- Good Harvest Café
- Great Lake Compact & Waukesha's Water Future, Presentation
- Great Lakes Compact Council Oral Arguments
- Green Lake Conference – Presentation on Diversion Application
- Jill Organ, Chief of Planning & Development, Milwaukee County Parks
- John Crotty, Magazine Interview
- Journalism Group Discussing Diversion
- Julia Robson, Southeastern Wisconsin Invasive Species Consortorium, Inc. - Interview
- Kathy Chiaverotti, Mayor of Muskego
- Keith Haas, Racine Water Utility General Manager
- Matthew Stinson, periodical interview
- Milwaukee Business Journal Editorial Board
- Milwaukee Water Council
- New Waukesha Aldermen
- Peter Annin, Author of *The Great Lakes Water War*
- Public Service Commission
- Racine County Officials

- Racine Journal Times Editorial Board
- Racine Water Council, Meeting on Water Conservation
- Racine Water & Waukesha Water Taping Session with Telemundo Global partner
- Regulatory Affairs
- UW-Madison, Meeting
- Washington DC
- Water Executives of Southeastern Wisconsin
- Waukesha Clean Water Plant
- Waukesha County Business Alliance
- Waukesha Water Utility Commission Meetings (12 times per year)
- Wisconsin DNR
- Wisconsin Wastewater Operator's Association, Presentation

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

Waukesha Water Utility plans for the future by educating our youth. In 2017, the Utility continued to provide water education classes to the following:

1. Waukesha School District's 5th graders (for the past 28 years)
2. Mount Calvary Lutheran's 7th graders (for the 9th year)
3. Waukesha County's Boy Scouts (for the 6th year)
4. Waukesha South High School's Science Class Tour (3rd year)
5. Montessori School's Lego League (New in 2017)
6. Carroll University's Environmental Health Class (New in 2017)

1. Waukesha School District's 5th Graders

For the past 28 years, Waukesha Water Utility has partnered with the Waukesha School District to provide water education to all 5th graders. As part of their Environmental & Science Curriculum, the students study the natural cycles of water and the human impact on our water resources. Thousands of students have toured the Utility's pumping station. At the station, they learn about the following:

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

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

In 2017, we spent approximately 80 hours educating approximately 1,316 students, along with approximately 60 teachers and chaperones from the Waukesha School District.

Mount Calvary Lutheran Students

2. Mount Calvary Lutheran 7th Graders

For nine years, Mount Calvary Lutheran 7th graders (along with their teacher and chaperones) have toured the Utility pumping station to learn where their water comes from, how it's treated and distributed, and also to learn about water conservation. A few weeks after their tour, they usually follow up with thank you letters highlighting what they learned. This year we did not receive the letters from the students. I believe this was due to classes being held later in the year and right before their holiday break. However, the presenting staff did receive a lot of comments, while the students and chaperones toured the station, saying they were very impressed by what they learned about water.

2017 Boy Scouts Water Ed Class & Tour

3. Waukesha County Boy Scouts

Waukesha Water Utility partnered with the Waukesha County Boy Scouts to help them to earn their Soil and Water Conservation Merit Badge. This is the sixth year that the boy scouts toured the water pumping facilities; and, as the picture above shows by the number of boys that signed up for this tour, there was a lot of interest in learning about water.

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

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

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

The Utility's water education presentation & tour covered all the above required water topics.

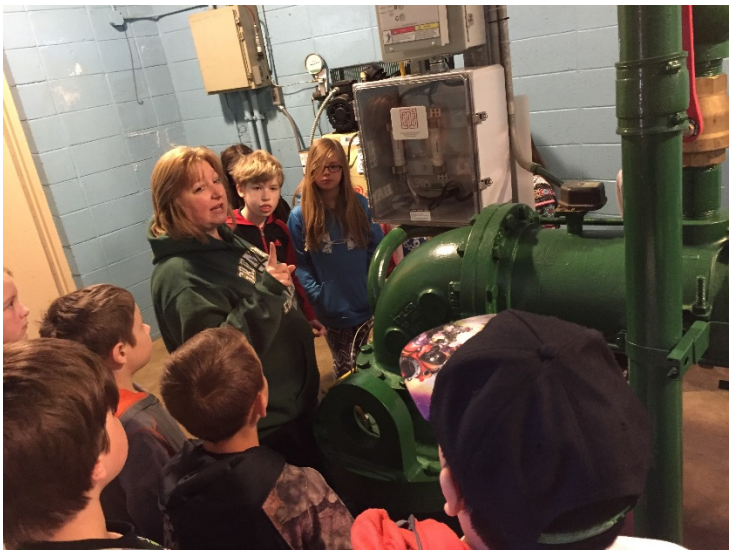
Waukesha South High School's Science Class Tour

4. Waukesha South High School's Science Class Tour

This is the third year Waukesha South High School has requested a tour. In the previous years, the Utility gave an in-class presentation and a field tour. In 2017, they requested the station tour.

Waukesha South High School's Science class toured the City's Wastewater Plant and the Water Utility facility. A variety of topics were discussed including how the facilities operate, water quality/radium, Waukesha's future water supply, careers in the water industry, and the importance of water conservation.

A few days after the tour, the teacher sent an email to the presenter thanking her for her time and stated that because of these kind of educational trips over the years, she has had multiple students decide to enter the public policy and environmental conservation fields.



Montessori School's Lego League Pumping Station Tour

5. Montessori School's Lego League (New in 2017)

Waukesha Water Utility received numerous of calls in the Spring of 2017 from regional Lego League groups informing the Utility that this year's Lego theme/competition is related to Hydrodynamics, as shown on the following page.

Some of the Lego Leagues asked to interview specialists in the water industry, some requested tours, some wanted to see a robot go through the water pipes, and others wanted information. All of the groups were referred to the Utility's Conservation website and were also told about the link for Wisconsin Water Association's Youth Group's "*Do You Know Your H2O*?" video and educational packet.

After being referred to the Utility's website and the *Know Your H2O* video, the groups that were not from the city of Waukesha, were referred to their own municipal water utilities.

For the group that wanted to see a robot go through the pipes, we referred them to the Waukesha public works department because they do have a machine that goes through pipes.

For the groups that were from the city of Waukesha, we answered questions pertaining to water quality, radium, costs, and conservation.

One of Waukesha's Lego groups was from Montessori School. This group requested an educational tour of the water pumping station. Utility staff gave the Montessori students, and their chaperones, the same tour as the Waukesha School District's fifth graders. The students participated in the hands-on activities and learned about Waukesha's water, careers in the water industry, and ways to conserve.

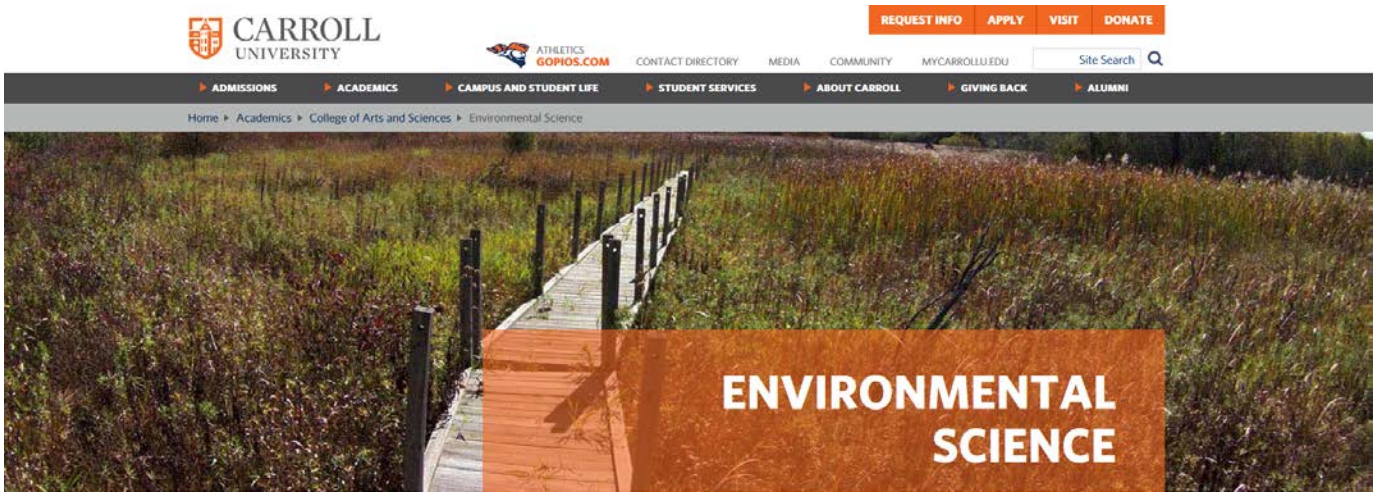
Hydro Dynamics℠

Exploring the location, use, storage and movement of water

On your mark, get set, flow! Drink in the 2017/2018 HYDRO DYNAMICS℠ season and learn all about water – how we find, transport, use, or dispose of it. In the 2017/18 FIRST® LEGO® League Challenge, students age 9 to 16 from 80 countries will make a splash with HYDRO DYNAMICS. What might become possible when we understand what happens to our water?

FIRST® LEGO® League challenges kids to think like scientists and engineers. During the HYDRO DYNAMICS℠ season, teams will choose and solve a real-world problem in the Project. They will also build, test, and program an autonomous robot using LEGO® MINDSTORMS® technology to solve a set of missions in the Robot Game. Throughout their experience, teams will operate under the FIRST LEGO League signature set of Core Values, celebrating discovery, teamwork, and Gracious Professionalism®.

From August 29th, 2017 the detailed challenge missions will be published for FLL Robot Game & FLL Research Project on our websites. Sign up for this years challenge from April 10th to Oct 28th online.



6. Carroll University's Environmental Health Class

A Carroll Unversity professor, in the Public Health Department, contacted the Utility requesting a presentation for their Environmental Health students. Some of objectives of the course is for students to gain a fundamental knowledge of the development of environmental health problems, the interaction of individuals and communities have with the environment, and the regulatory policies/practices, treatment and prevention strategies associated with environmental issues.

Utility staff gave an in-class presentation regarding Waukesha's water. The presentation started with Water 101 – giving an introduction as to where Waukesha's water comes from, how its treated, quality and quantity issues, what Waukesha test for, costs, and different careers in the water industry.

One of the main themes of the presentation was talking about how we take water for granted and how fortunate we are to have the amount of water that we have in this area compared to other Countries. We also talked about how North America, including Waukesha, faces water supply and sustainability challenges.

Another theme that was talked about is how water is exceptionally cheap relative to its real value, but that we are all going to pay more for drinking water in the future. We talked about the reasons that we need to increase water rates – that its driven by increasing federal and state regulations and increasing operating and maintance costs.

We also talked about Waukesha's future water supply, why we need a new source, Waukesha's Application process, the return flow, and sustainability/conservation.

D. Partnerships

In addition to the educational programs, community outreach, and youth education previously mentioned, Waukesha Water Utility also maintains the following partnerships:

1. Focusing on the Future of Environmental Education in Waukesha County

In 2016, the Utility attended and participated in a Stakeholder's Meeting where Waukesha County Parks & Land Use, the School District of Waukesha, and Carroll University are collaborating to develop and promote a local and regional cooperative environmental education program.

The County's overall program objective is to "focus on…providing a broad dissemination of model curricula, education materials, and programs for all ages within the public, professional and school sectors."

In 2017, the Associated Professor, of Chemistry and Environmental Science at Carroll University, contacted the Utility to inform us that the new 5th grade environmental module deals mostly with the topic of water. The Professor asked if the Utility has any materials, based on science and fact, that talks about Waukesha's water story.

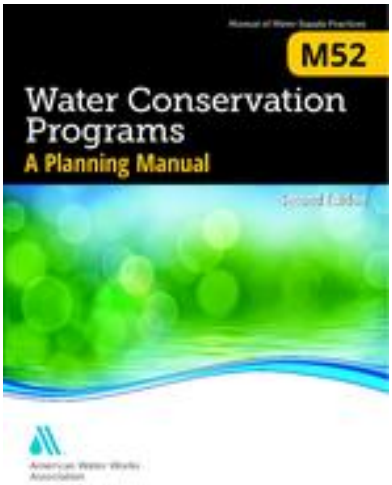
The Utility reviewed the new 5th grade environmental program and noticed that the group had a link to the Great Water Alliance website – this is the website that keeps citzens informed about Waukesha's future water supply. This website also includes extensive information pertaining to Waukesha's water history and quality and quantity issues.

Instead of duplicating the information, the Utility acted as a resource and provided this group information and a link to Wisconsin's AWWA Youth Group's "*Do You Know Your H2O?"* video and teacher educational packet.

We explained that the Utility is a partner of this Youth Group and the group worked with a production company to create a 30 minute video that features two water utilities – Madison Water and Kenosha Water (a groundwater utility and a surface water utility). We informed the group that the production was aired on the *Into the Outdoors* show on four separate occasions. We also explained that the goal of the video is to serve as an educational resource to educate students on responsible stewardship of water resources and to raise interest in the drinking water industry careers to help prepare for the future workforce.

The group was very appreciative and thought this was a very good resource to include in the new curriculm.

American Water Works Association
Dedicated to the World's Most Important Resource



2. American Water Works Assocation – M52

Waukesha Water Utility, along with other utilities and industry professionals, participated in the development of AWWA's M52, Water Conservation Programs – A Planning Manual for Water Professionals to create and measure the success of a water conservation program.

Because we volunteered our time, AWWA offered the Utility a complementary digital copy of the manual as a thank you.

3. WaterSense – Recognition for Going Above & Beyond

Waukesha Water Utility has been a WaterSense partner for many years. As a WaterSense partner, we are required to complete an annual report that informs the Environmental Protection Agency (EPA) about the WaterSense promotional activities the Utility coordinated or participated in during the past year.

Once the annual report has been submitted, partners can then apply for the *Partner of the Year* award. In 2017, the Utility applied for the award and informed the EPA about the activities that took place in 2016.

In September 2017, the Utility received a letter from EPA informing us that they were very impressed with information that we had reported; and, therefore, they were presenting the Utility with a certificate for *Going Above & Beyond* their partnership expectations.

The EPA's letter went on to say that they were very impressed with Waukesha for increasing their toilet rebates 66% from the previous year, for providing rebate applications for WaterSense-labeled products to our local Home Depot – so that they could inform their customers about the rebates, and for the Utility providing WaterSense shower heads to multi-family buildings for disabled and elderly people with the Waukesha Housing Authority.

In addition to sending the Utility the letter and certificate, the EPA's letter also stated that they were going to mention the Waukesha Water Utility, along with other certificate recipients, during their Awards luncheon on October 5th, 2017.

A copy of the EPA's cover letter and certificate for Going Above & Beyond is shown on the following pages.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 28 2017

OFFICE OF WATER

Mary Adelmeyer
Waukesha Water Utility
PO Box 1648
Waukesha, WI 53187-1648

Dear Mary,

We are always excited when we reach that time of the year to review the applications for our WaterSense Partner of the Year awards. But it is a hard job, because everybody is doing great things and we know you put a lot of effort into your application. While you were not selected as a winner this year, the judges of the WaterSense 2017 Partner of the Year Awards were very impressed when reviewing Waukesha Water Utility's application materials about promoting WaterSense and water efficiency. We are pleased to recognize this effort and present you with the enclosed certificate for going above and beyond our partnership expectations.

We were especially impressed with how Waukesha ramped up your rebate programs in 2016, increased WaterSense labeled toilet rebates by 66 percent from the previous year, and provided rebate applications for labeled products to staff at The Home Depot, who then informed customers about the available rebates. By providing labeled showerheads to multifamily buildings for the disabled and elderly and other public housing sites in partnership with the Waukesha Housing Authority, you made a substantial contribution to the community.

I plan to mention Waukesha Water Utility and other Above and Beyond certificate recipients during the WaterSense Awards Luncheon on Thursday, October 5, 2017, during the WaterSmart Innovations Conference and Exposition in Las Vegas. We will also look to identify opportunities to highlight your work during the year.

Please stay tuned for further details on next year's WaterSense Awards program; thank you again for applying and for your commitment to saving water together. We look forward to reviewing your application next year!

Sincerely,

Veronica Blette

Veronica Blette, Chief
WaterSense Branch

Enclosure

Internet Address (URL) • http://www.epa.gov
Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Postconsumer, Process Chlorine Free Recycled Paper

Cover Letter from EPA informing the Utility that we are a Recipient of a Certificate

EPA WaterSense Certificate Presented to the Utility for Going Above & Beyond

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 2017 is as follows. Data is entered into the format below.

Water Balance		
		2017 Total
	System Input Volume =	2,131,576,000
	Authorized Consumption =	1,955,732,931
	Water Losses =	175,843,069
		2,131,576,000
	Authorized - Billed =	1,929,813,800
	Authorized - UnBilled =	25,919,131
	Losses - Apparent =	170,572,691
	Losses - Real =	5,270,378
		2,131,576,000
Authorized Consumption	Billed & Metered	1,929,813,800
	Billed & UnMetered	-
	UnBilled & Metered	24,336,361
	UnBilled & UnMetered	1,582,770
Water Losses	Unauthorized Consumption	170,572,691
	Meter Inaccuracies	
	Data Handling Errors	
	Main Breaks	3,165,300
	Leakage & Overflows at Towers	184,078
	Service Breaks	1,921,000
		2,131,576,000
	Revenue Water =	1,929,813,800
	Non Revenue Water =	201,762,200
		2,131,576,000

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

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		2017 Total
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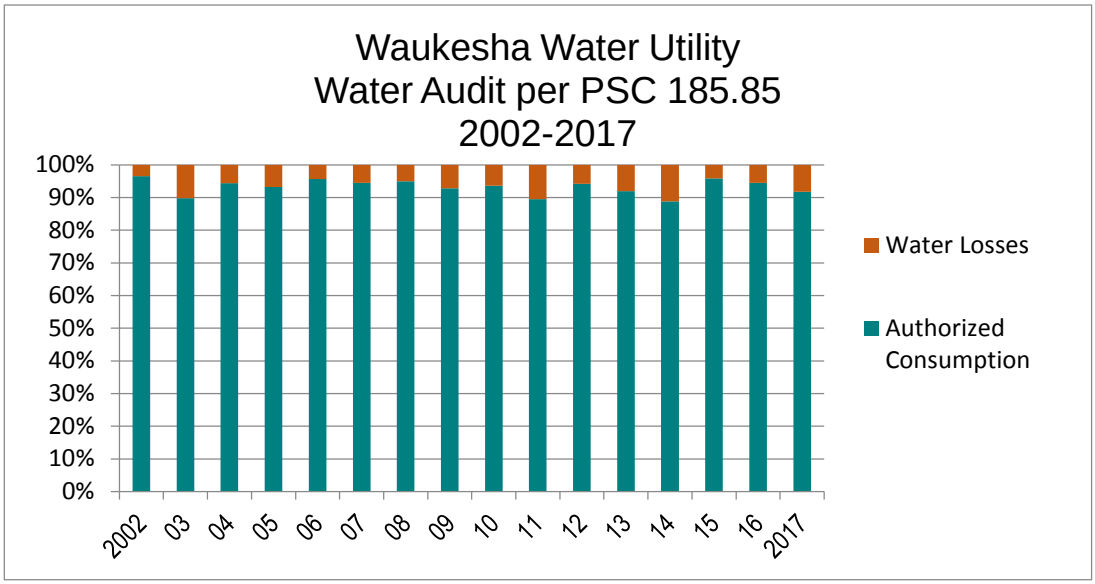
		2,131,576,000
	Revenue Water =	1,929,813,800
	Non Revenue Water =	201,762,200
		2,131,576,000

The summary, above, indicates that in 2017, 8.7% of the Utility's water was lost. This loss is far less than the 15% that has historically triggered a comprehensive survey and corrective action plan.

The stability of the statistics over the last sixteen years and the data itself is indicative of a diligently maintained distribution system. (The Utility reformatted its data from 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 2017, 1,717 hydrants were surveyed. Twenty-two leaks were detected and the related hydrants were repaired immediately.

In addition, the Utility replaced 8,156 feet of water main in 2017 as compared to 21,830 in 2016. AWWA's 1% replacement goal represents roughly 17,608 feet.

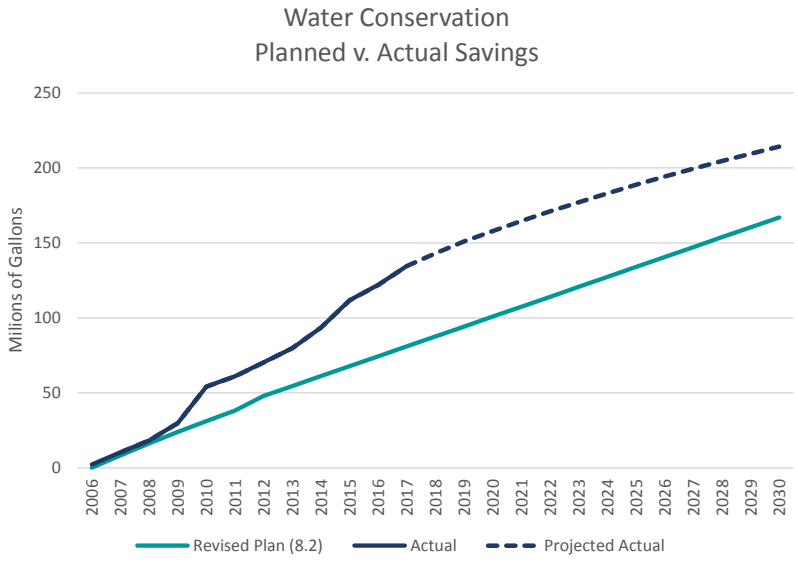
VIII. CONCLUSION

	MILLIONS OF GALLONS											
Year	Annual Pumpage	Avg Day Pumpage	< 7.8	7.8 to 8.8	8.8 to 9.0	9.0 to 10.0	10.0 to 11.0	11.0 to 12.0	12.0 to 13.0	>7.8	>8.8	Peak Day	Notes
						Number of Days							
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:

a. Total water pumped has steadily declined
b. Average day pumpage has steadily declined
c. The number of days where >7.8 million gallons needed to be pumped has decreased from a high of 145 in 1999 to 0 in 2017.

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.