Public Service Commission of Wisconsin

Survey of Water Conservation and Efficiency Efforts

An Analysis of Wisconsin Water Utilities
September 2008

Report prepared by:
Katherine Den Boer and Jeff Ripp

TABLE OF CONTENTS

I. SURVEY HIGHLIGHTS 3

II. INTRODUCTION 4

Utility Information: Questions 1-8 5

III. WATER LOSS CONTROL 7

Identifying Leaks and Losses: Questions 9-13 7

Meter Testing: Questions 14-16 12

IV. CONSERVATION AND EFFICIENCY PROGRAMS 15

Implementation of Measures: Questions 17-19 15

Water Conservation Program Financing: Questions 20-23 19

Other Efforts in the Community: Questions 24-27 20

PSC Involvement: Questions 28-29 21

V. APPENDIX 1: Survey Questions 22

VI. APPENDIX 2: Information about responding utilities 27

VII. APPENDIX 3: Maps 48

VIII. APPENDIX 4: Summary of Responses 51

I. SURVEY HIGHLIGHTS

- In 2007, the average residential customer in Wisconsin used 48,350 gallons of water per year.
- To minimize leaks and other losses from their systems, 19.3 percent of the responding utilities have developed written water loss control plans, which is a best management practice.
- Of those utilities responding to the survey, 40.6 percent include water mains, service laterals and connections, hydrants and valves, storage facilities, and pumping facilities in their regular leak detection efforts.
- Two-thirds of the utilities responding to the survey have already implemented at least one of the water conservation and efficiency measures identified by the PSC.
- Of the water conservation measures listed, utilities indicated that they would be most likely to develop a public information and education program within three years.
- Of the water conservation measures listed, utilities indicated that they would be least likely to offer rebates and financial incentives to non-residential customers in the next three years.
- To help customers better manage their water use, 38.8 percent of the responding utilities bill their customers monthly.
- Of those utilities responding to the survey, 15.6 percent indicated that their communities had implemented local ordinances restricting outdoor water uses, such as lawn watering.
- Water reuse or recycling projects are ongoing in the communities of 16.1 percent of the responding utilities.
- According to survey respondents, PSC assistance is most needed to identify water conservation benchmarks and best management practices.

II. INTRODUCTION

Nationwide, there is increasing interest in promoting water conservation and efficiency to manage demand and meet critical water supply needs. Even in a water-rich state like Wisconsin, water utilities have begun implementing water conservation and efficiency programs in response to declining groundwater levels, increasing demand, and drought concerns. In addition, water conservation and efficiency is expected to be an important component of future water use regulations, including those required by the Great Lakes-St. Lawrence River Basin Compact. Using water more efficiently benefits utilities and the public by:

- reducing energy and chemical costs for pumping and treating water;
- avoiding or delaying expensive capital investments in new wells and other infrastructure;
- ensuring that sufficient water is available to promote economic growth and development while supporting healthy ecosystems; and
- preserving valuable water resources for future generations.

In the spring of 2008, the Public Service Commission of Wisconsin (PSC) conducted a survey of Wisconsin water utilities to identify the water conservation and efficiency efforts in place across the state. The survey responses will guide the PSC in its efforts to assist water utilities in developing effective water conservation and efficiency programs. In addition, this report will serve as a valuable resource for utilities to identify best management practices that may be useful in their communities.

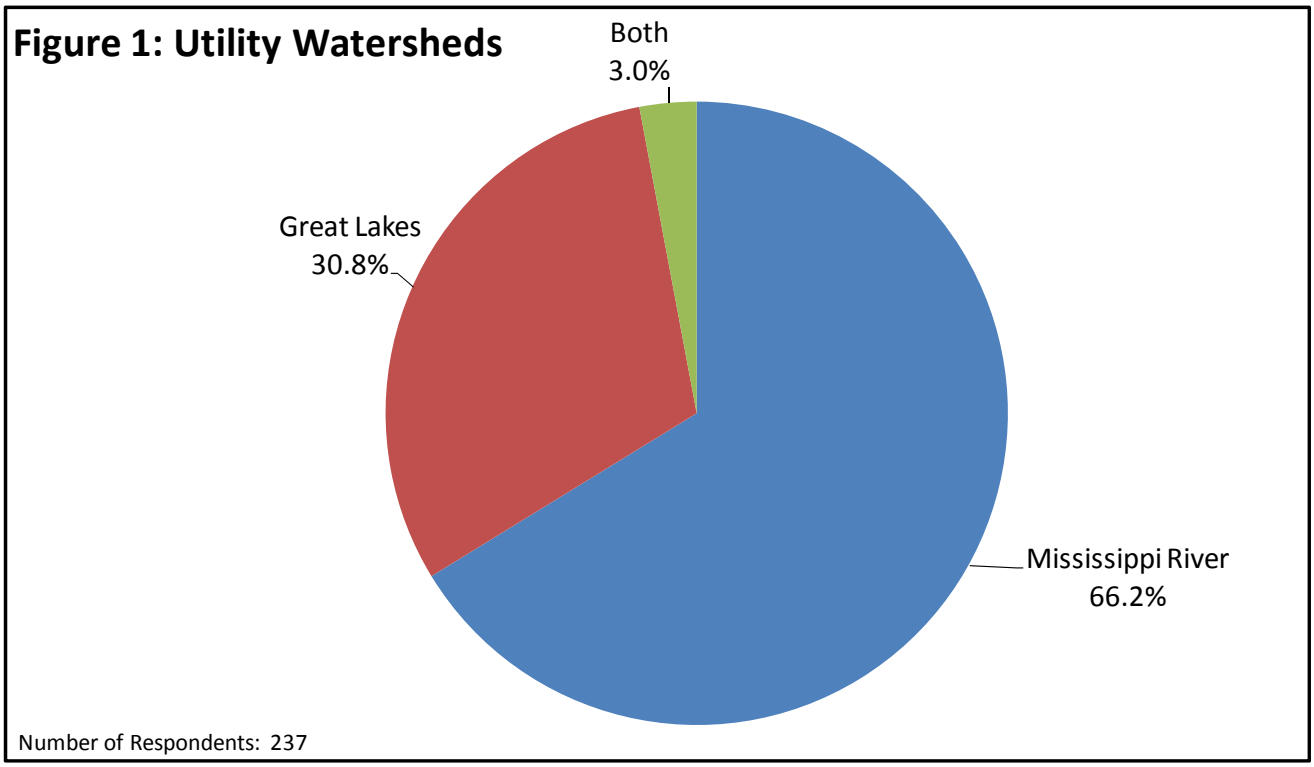
The survey was distributed to 535 Wisconsin water utilities and responses were collected over the Internet from January 2008 to May 2008. The PSC received 237 responses, representing a 44.3 percent response rate. Typically, the water utility manager, superintendent, director of public works, or other utility employee completed the survey. These respondents had considerable experience in the water industry, as demonstrated by the fact that 46.4 percent of respondents reported having been in their current position for more than 10 years. Additional background information about each utility, such as the number of residential customers served and the amount of water sold, was obtained from annual reports submitted to the PSC in 2007.

This report summarizes the utilities' responses to 29 questions related to both supply-side and demand-side water conservation and efficiency measures. Additional information about the survey and the utilities that participated is included in the report appendices. Appendix 1 lists the questions and response choices included in the survey. Appendix 2 contains background information about each utility, including name, utility number, service area size, primary watershed, maximum daily pumpage, average daily pumpage, number of residential customers, residential sales, total sales, and average water use per residential customer. Appendix 3 includes maps showing the location of responding utilities, comparing residential water usage

among utilities, and identifying communities that have outdoor water use ordinances. Finally, Appendix 4 summarizes the responses to each question.

Utility Information: Questions 1-8

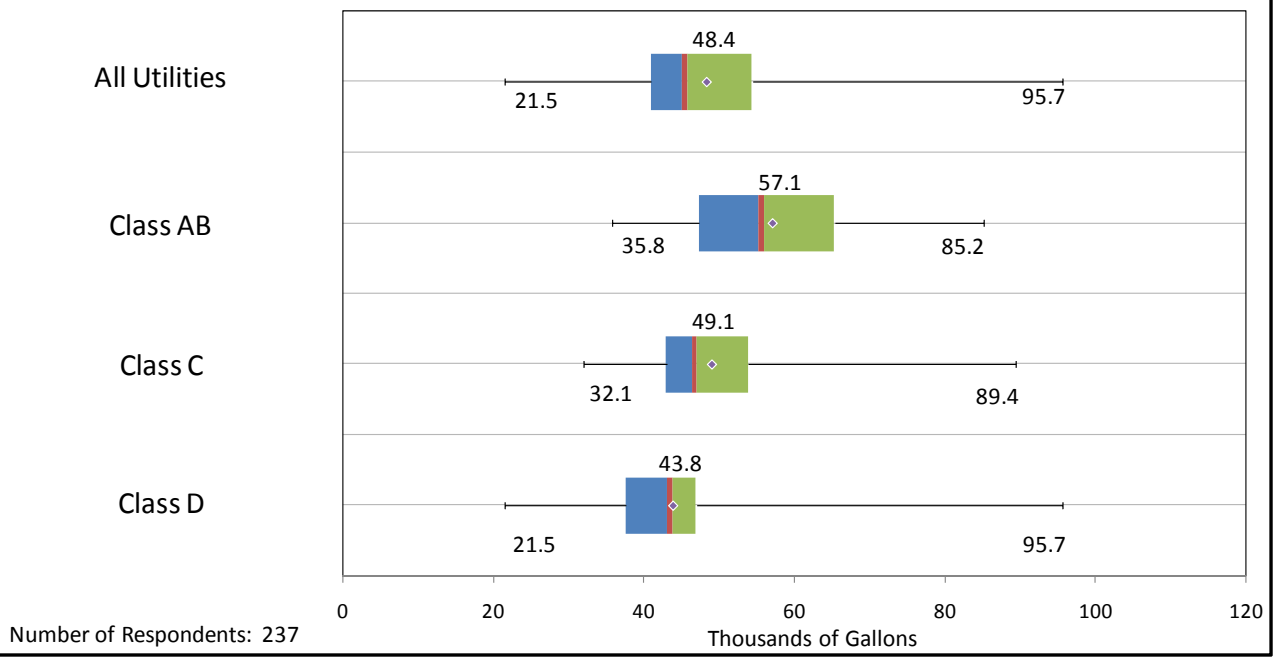
The PSC classifies water utilities according to the number of customers they serve. Class AB utilities serve more than 4,000 customers, Class C utilities serve between 1,000 and 4,000 customers, and Class D utilities serve fewer than 1,000 customers. Responses were received from 48 Class AB utilities, 81 Class C utilities, and 108 Class D utilities. As shown in Figure 1, 157 of the utilities are located in the Mississippi River basin, 69 in the Lake Michigan basin and 4 in the Lake Superior basin. Seven utilities reported that their service area falls into both the Mississippi River basin and the Great Lakes basin. Thirteen of the responding utilities are supplied by surface water, 213 utilities pump their own groundwater, and 25 utilities purchase at least some of their water from another utility. The surface water utilities reported that, on average, they pump more water per year than the groundwater utilities. This can be attributed to the fact that many of the surface water utilities are located along Lake Michigan, which is the most densely populated area of the state. Appendix 3 contains a map showing the major watershed and the location of the utilities responding to the survey.



It is difficult to compare water use among communities because of differences in the types of customers served, geography, distribution system efficiency, and other factors. Nonetheless, average residential water use can be estimated using information from annual reports submitted to the PSC, including the number of residential customers and total amount of metered residential water sales. These numbers include only single-family homes and duplexes because multi-family dwellings, such as apartment buildings, are typically classified as commercial customers.

Residential water use varies among the utilities that responded to the survey. The average residential customer in these communities used 48,350 gallons per household in 2007. As shown in Figure 2, the middle 50 percent of residential customers used between 40,938 gallons and 54,444 gallons. However, average residential usage varies by utility size. On average, Class AB residential customers used 57,128 gallons, Class C residential customers used 49,050 gallons, and Class D residential customers used 43,882 gallons. One factor that might contribute to this difference is that customers of smaller utilities, which are typically located in rural areas, may use less water for lawn watering. Appendix 3 contains a map comparing annual average residential water use among the communities that participated in the survey.

Figure 2: Amount of Water Used Per Residential Customer 2007



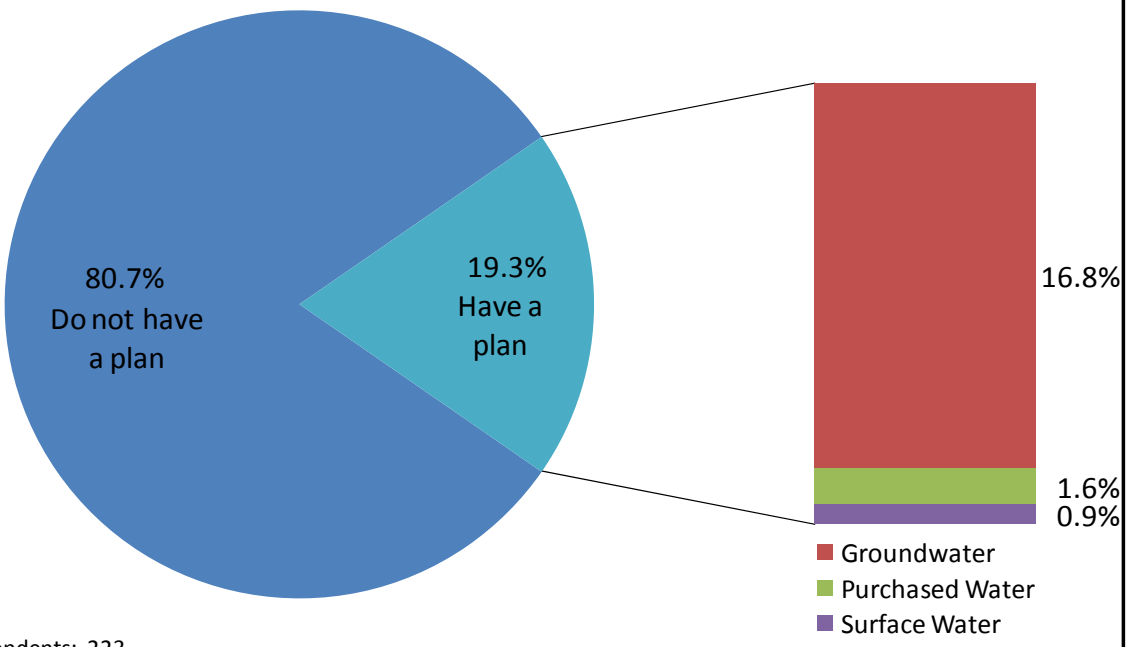
III. WATER LOSS CONTROL

Unaccounted for water includes water that is lost due to leaks, meter inaccuracies, theft, and other unmetered or unknown uses. PSC rules (Wis. Admin. Code Ch. PSC 185) limit the amount of unaccounted for water to no more than 25 percent of the total amount pumped for small utilities (Class C and D), and no more than 15 percent for Class AB utilities. The term "water loss control" describes those actions taken by a water utility to reduce the amount of unaccounted for water. Unlike other water conservation measures that seek to manage customer demand, water loss control is a supply-side management tool. Nonetheless, water loss control measures are an important component of a utility's overall water conservation strategy. In addition to preventing losses, such programs set a good example for utility customers and can improve efficiency by reducing energy and chemical costs and by increasing utility revenue.

Identifying Leaks and Losses: Questions 9-13

Utilities were asked if they had developed a written water loss control plan, which is a best management practice that can assist utilities in identifying meter inaccuracies, locating leaks in their distribution systems, and identifying unmetered or unbilled water usage. While not required by PSC rules, 19.3 percent of respondents said that their utility had implemented a written water loss control plan. Of the 42 utilities that had a plan, most rely on groundwater or purchased water as their primary source of supply.

Figure 3: Percentage of Respondents With A Written Water Loss Control Plan



Number of Respondents: 223

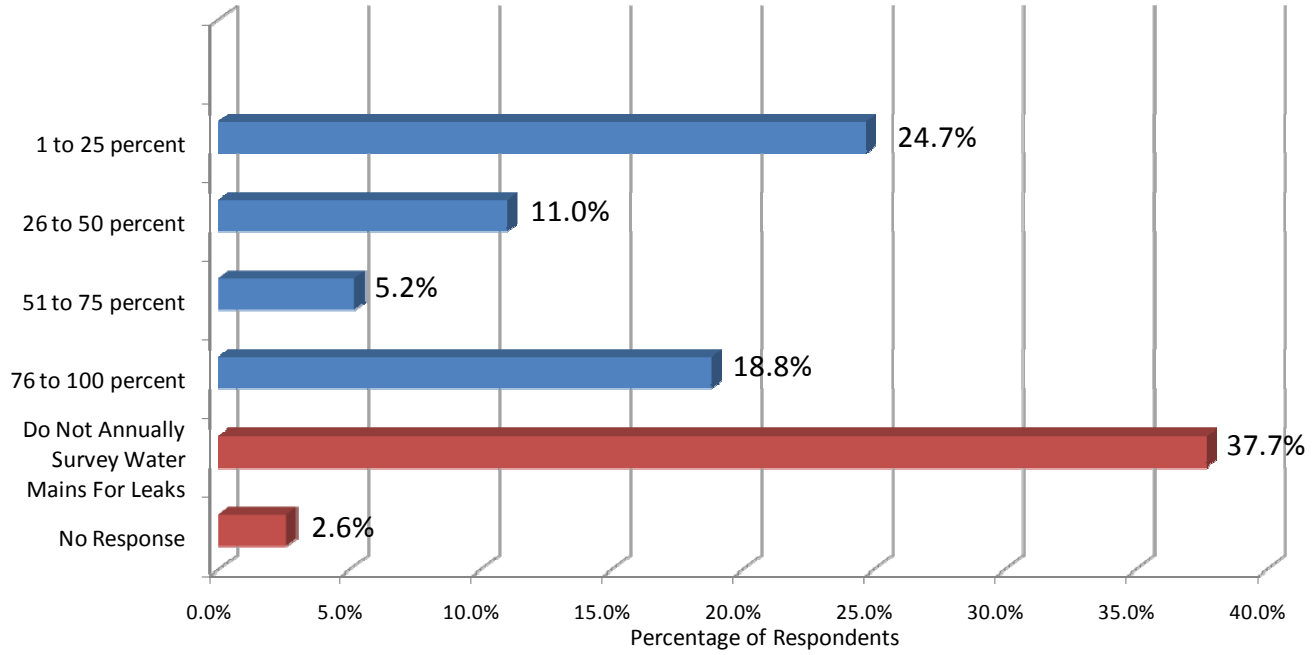
Regardless of whether they reported having a written water loss control plan, the survey asked whether the utilities regularly evaluated losses from water mains, service laterals and connections, hydrants and valves, storage facilities, treatment facilities, and pumping facilities as part of their water loss control efforts. Table 1 shows that 78.1 percent of the utilities responding to the survey indicated that they regularly check hydrants and valves for leaks. Only 41.6 percent of respondents reported that they regularly evaluate treatment facilities for leaks, but because most groundwater utilities do not have centralized treatment facilities, nearly one-third of respondents indicated that this measure was not applicable to their utility. Overall, 40.6 percent of the responding utilities reported evaluating water loss from all of the listed system components, excluding treatment facilities, as part of their regular leak detection and water loss control efforts. In contrast, only 14.7 percent of the responding utilities indicated that they do not regularly check any of the listed system components for leaks.

Table 1: System Components Included in a Regular Leak Detection and Water Loss Control Program

	Yes	No	Unknown	Not Applicable	Number of Respondents
Water Mains	68.8%	27.2%	2.7%	1.3%	224
Service Laterals and Connections	61.6%	33.9%	3.1%	1.3%	224
Hydrants and Valves	78.1%	18.3%	2.2%	1.3%	224
Storage Facilities	59.4%	27.7%	5.8%	7.1%	224
Treatment Facilities	41.6%	22.2%	3.2%	33.0%	221
Pumping Facilities	66.5%	21.4%	2.7%	9.4%	224

The survey asked utilities to estimate the percentage of their water mains that they survey for leaks annually. As shown in Figure 4, of the 154 utilities that indicated that they evaluate water loss from water mains as part of their regular water loss control efforts, only 18.8 percent answered that they survey between 76 to 100 percent of their water mains annually. Another 37.7 percent reported that they do not annually survey their water mains for leaks, which suggests that they instead do so irregularly or at some other interval.

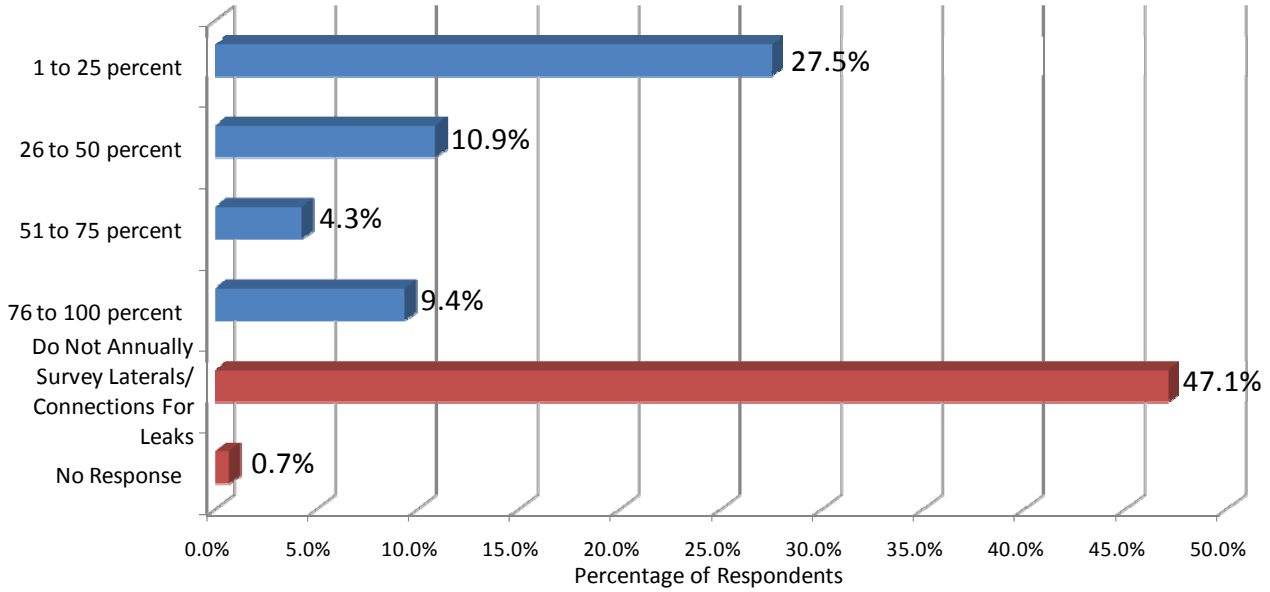
Figure 4: Percentage of Water Mains Surveyed for Leaks Annually



Number of Respondents (based on affirmative responses in Question 10): 154

Similarly, utilities were asked to estimate the percentage of their service laterals and connections that they survey for leaks annually. As shown in Figure 5, of the 138 utilities that indicated that they evaluate service laterals and connections as part of their regular water loss control efforts, only 9.4 percent answered that they survey between 76 and 100 percent of their service laterals and connections for leaks annually. Another 47.1 percent of respondents reported that they do not annually survey their service laterals and connections, which suggests that they instead do so irregularly or at some other interval.

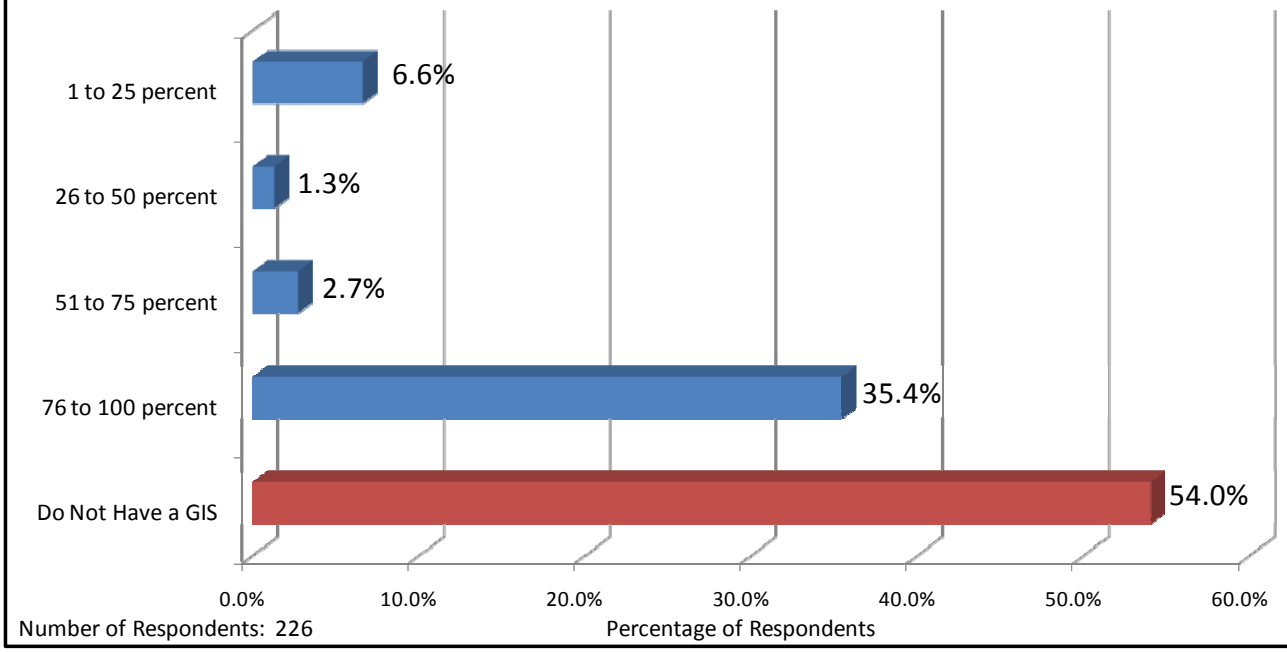
Figure 5: Percentage of Service Laterals & Connections Surveyed for Leaks Annually



Number of Respondents (based affirmative responses in Question 10): 138

The survey also asked utilities to estimate the percentage of their distribution and storage system that had been mapped using a geographic information system, or GIS. Maintaining accurate maps showing the location of infrastructure such as mains and service laterals is a best management practice that can help utilities in identifying leaks, scheduling maintenance, and highlighting problem areas. As shown in Figure 6, 54.0 percent of the utilities surveyed do not have a GIS, while 35.4 percent of respondents said their utility had mapped between 76 and 100 percent of their distribution and storage system. Of the 80 respondents who reported having mapped between 76 to 100 percent of system, more than two-thirds were Class AB utilities.

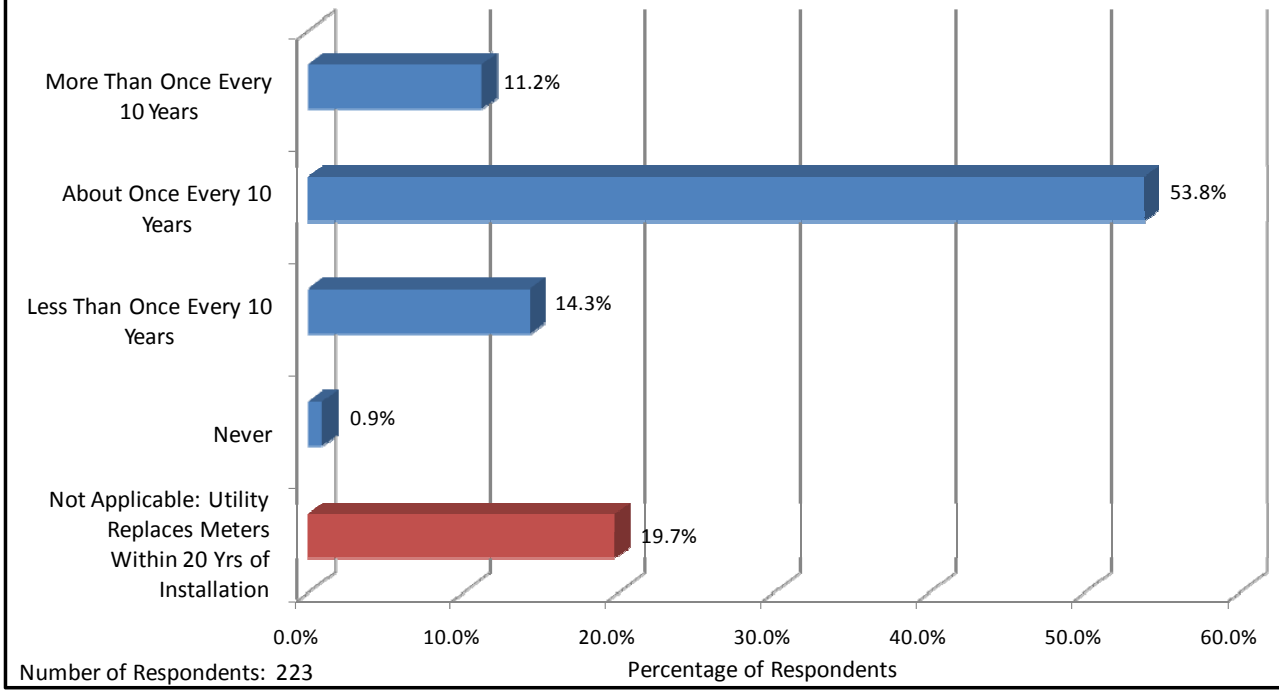
Figure 6: Percentage of Distribution & Storage System Mapped Using a Geographic Information System (GIS)



Meter Testing: Questions 14-16

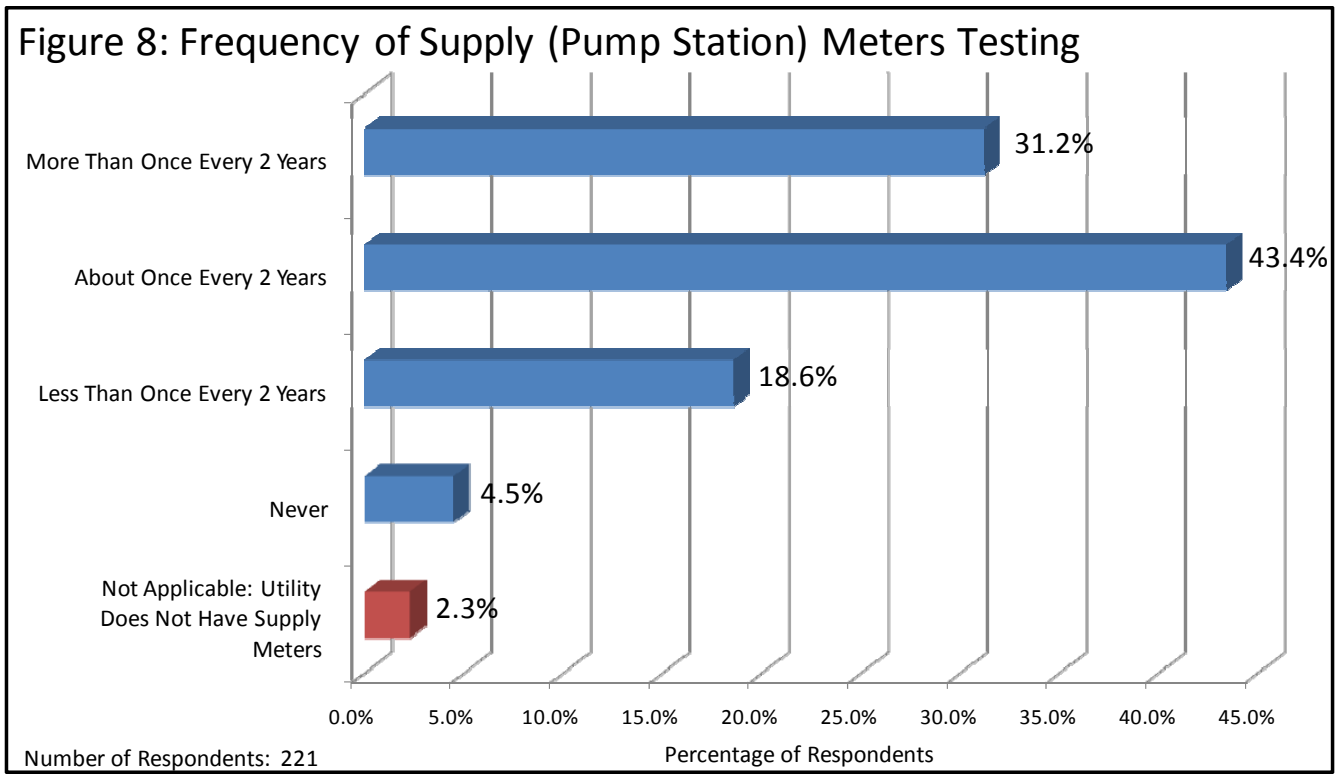
Utilities were asked how frequently they test their 5/8, 3/4, and 1-inch customer meters for accuracy. Regular testing to ensure that meters work properly is important not only for billing purposes, but also for establishing actual water usage and identifying leaks. PSC rules (Wis. Admin. Code Ch. PSC 185) provide two options for utilities in testing customer meters. Utilities may either test meters at least once every 10 years, or they may replace all customer meters within 20 years of installation. As shown in Figure 7, 19.7 percent of respondents stated that their utility replaces all meters within 20 years of the original installation date. While the majority of the remaining utilities comply with PSC rules, 15.3 percent indicated that they test meters less frequently than once every 10 years.

Figure 7: Frequency of Testing for 5/8, 3/4, and 1-Inch Customer Meters

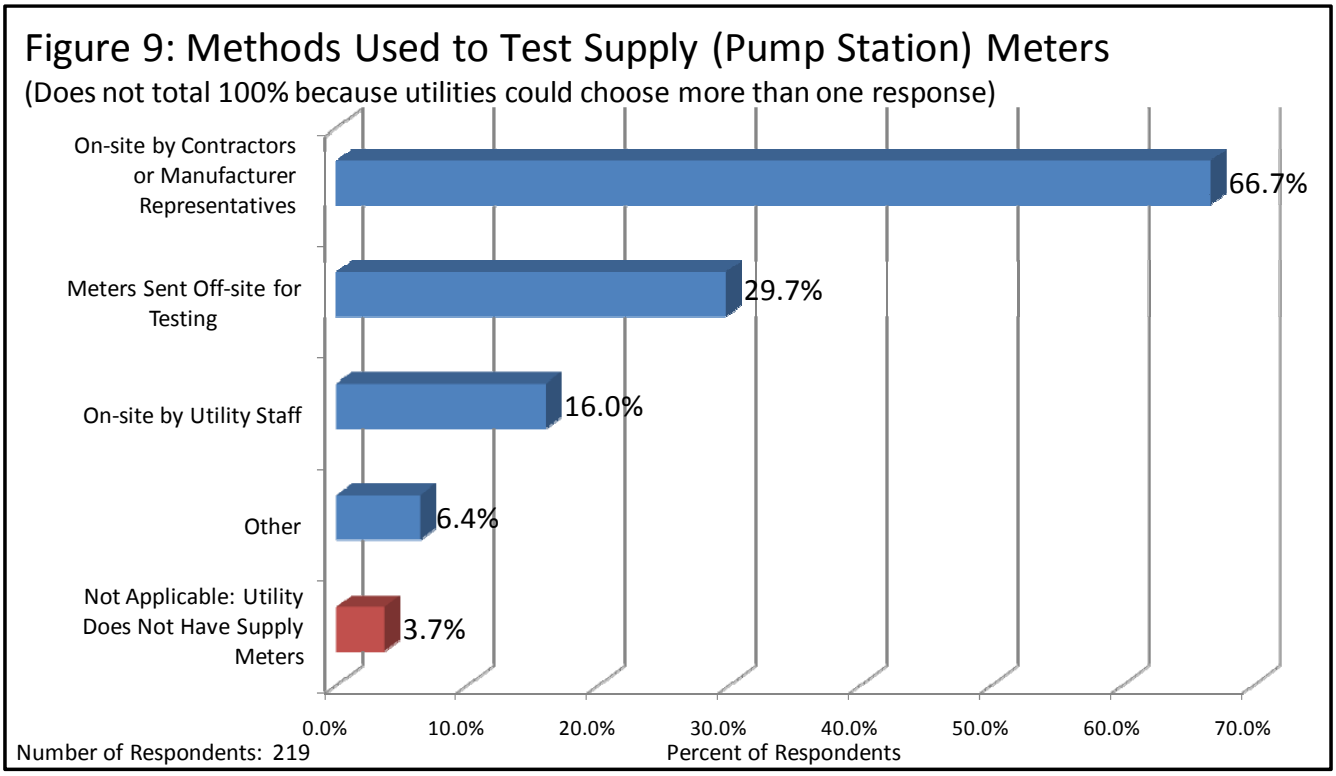


Number of Respondents: 223

Utilities were also asked how frequently they test their supply (pump station) meters for accuracy. PSC rules require that utilities test their pump station meters at least once every two years. As shown in Figure 8, nearly three-quarters of the responding utilities reported testing their supply meters at least once every two years. However, 23.1 percent of survey respondents reported less frequent testing, including 4.5 percent of respondents who indicated that they have never tested their supply meters and 18.6 percent who reported testing their supply meters less than once every two years.



There are several ways in which utilities can test their pump station meters. The survey asked utilities to select all of the methods that they use to test these meters. As shown in Figure 9, two-thirds of respondents said that on-site contractors or manufacturer representatives test their meters.



IV. CONSERVATION AND EFFICIENCY PROGRAMS

There are a wide variety tools and measures that utilities can use to manage customer demand and to promote water use efficiency. Because each utility is unique, not all of these measures would be applicable for any single utility. Instead, utilities may choose to implement only those measures that are likely to help them in achieving their overall water conservation goals. The survey contained a series of questions designed to identify the extent to which Wisconsin water utilities have implemented or would be likely to implement specific water conservation and efficiency measures.

Implementation of Measures: Questions 17-19

Respondents were asked to identify the likelihood that their utility would implement various water conservation and efficiency measures within the next three years. As shown in Table 2, responses were rated on a 5-point scale from "Very Unlikely" (1) to "Highly Likely" (5). Based on the utility responses, an average rating was calculated. Measures with a higher average rating indicate that the measure is more likely to be implemented by Wisconsin water utilities. Utilities were also given the option to answer that the "Measure Has Already Been Implemented." These responses were excluded from the calculation of average ratings.

Many utilities indicated that they had already implemented at least one of the listed water conservation measures, including 68.8 percent of responding Class AB utilities, 67.9 percent of Class C utilities, and 56.4 percent of Class D utilities. Moreover, one quarter of these utilities indicated that they implemented at least four of the suggested conservation measures, and one utility reported that they had implemented 8 of the 15 listed measures.

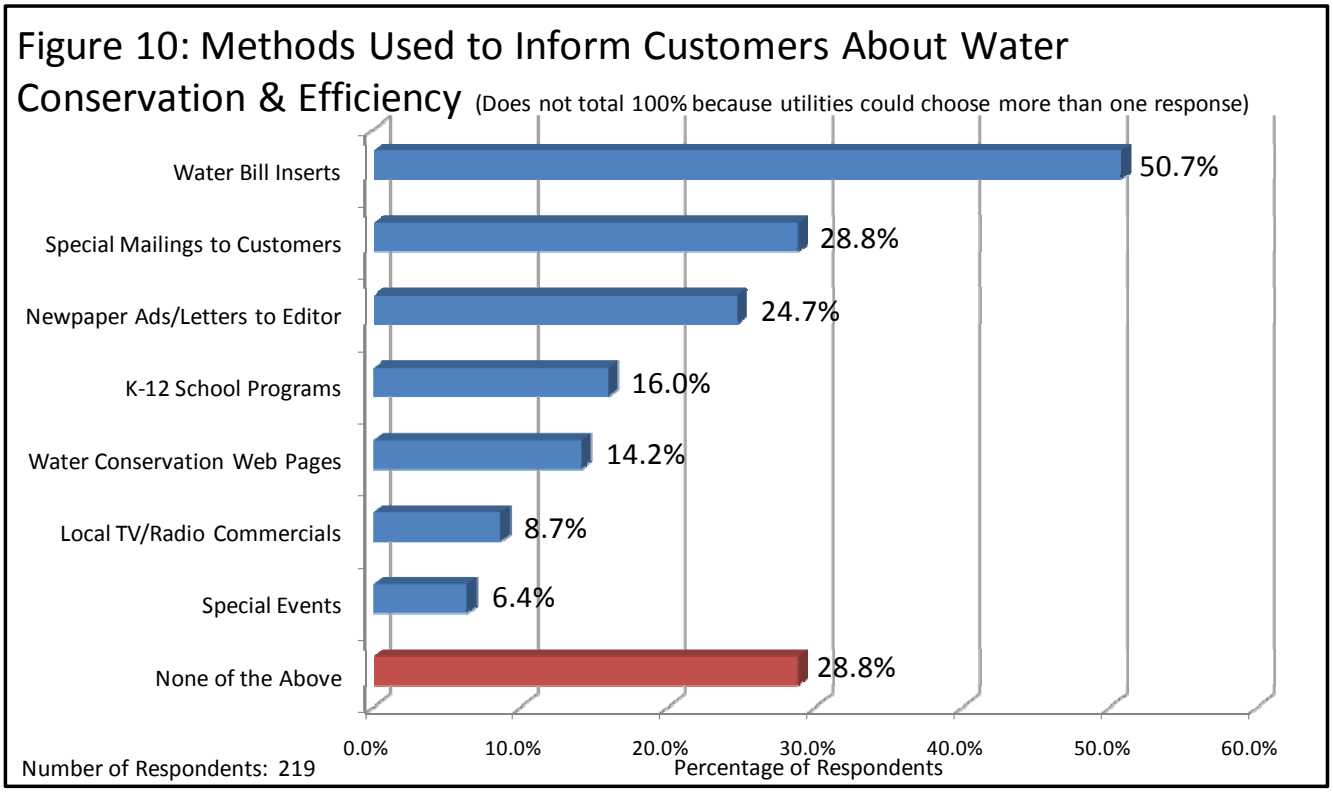
The most common measure that had already been implemented was the use of a monthly billing system. Based on the average ratings, utilities indicated that the development of a public information and education program is the most likely measure to be implemented within the next three years. Adopting a written water loss control plan and encouraging the use of rain barrels or rain gardens also rank high as measures likely to be implemented. The measure least likely to be implemented within the next three years is providing rebates or financial incentives to non-residential customers.

Table 2: Likelihood Of Implementing Conservation and Efficiency Measures Within Next 3 Years

	Very Unlikely (1)	Unlikely (2)	Neither Likely Nor Unlikely (3)	Likely (4)	Highly Likely (5)	Measure Has Already Been Implemented	Average Rating	Number of Respondents
Increase the frequency of meter testing and replacement	16.2%	24.3%	17.1%	16.7%	5.0%	20.7%	2.63	222
Adopt a written water loss control program	4.1%	18.6%	35.3%	25.8%	4.5%	11.8%	3.09	221
Manage pressure to minimize leaks in distribution system	12.7%	26.8%	24.5%	10.0%	3.6%	22.3%	2.57	220
Switch to monthly customer bills	20.1%	23.3%	9.6%	6.4%	1.8%	38.8%	2.13	219
Apply to the PSC for conservation- oriented water rates	10.5%	28.2%	39.5%	15.0%	5.0%	1.8%	2.77	220
Conduct water audits of residential customers	7.7%	29.4%	38.0%	10.4%	1.4%	13.1%	2.64	221
Conduct water audits of non- residential customers	8.3%	32.1%	39.4%	11.0%	0.9%	8.3%	2.61	218
Conduct water audits of customers with large landscape irrigation needs	15.5%	32.9%	38.4%	10.0%	0.5%	2.7%	2.46	219

Table 2: Likelihood Of Implementing Conservation and Efficiency Measures Within Next 3 Years								
	Very Unlikely (1)	Unlikely (2)	Neither Likely Nor Unlikely (3)	Likely (4)	Highly Likely (5)	Measure Has Already Been Implemented	Average Rating	Number of Respondents
Provide rebates or other financial incentives to residential customers	26.2%	39.8%	28.1%	2.7%	0.5%	2.7%	2.08	221
Provide rebates or other financial incentives to non-residential customers	30.8%	37.1%	28.5%	2.7%	0.0%	0.9%	2.04	221
Develop a public information and education program	5.9%	11.3%	32.6%	31.2%	6.8%	12.2%	3.25	221
Join EPA's WaterSense program	5.5%	15.9%	58.2%	14.1%	3.6%	2.7%	2.94	220
Create a citizen water conservation advisory group	16.8%	36.8%	40.0%	5.0%	0.5%	0.9%	2.35	220
Promote projects that reuse or recycle water	8.1%	18.6%	40.7%	22.6%	6.3%	3.6%	3.00	221
Encourage the use of rain barrels or rain gardens	7.8%	13.7%	38.8%	21.5%	7.3%	11.0%	3.08	219

The survey asked utilities to indicate which methods are used to inform their customers about their water conservation and efficiency efforts. Promoting awareness of water use and water-related issues through outreach and education is important for ensuring the success of a utility's water conservation program. As shown in Table 10, utilities most commonly reach customers through water bill inserts (50.7 percent of respondents). In contrast, only 6.4 percent of utilities indicated that they promote water conservation through special events. Two-thirds of respondents reported using at least one of the listed measures for informing their customers about their water conservation efforts, while nearly one quarter reported using three or more of the options listed.



The survey asked utilities to provide additional comments about their water conservation and efficiency efforts. Some utilities reported having implemented unique water conservation measures, while others provided additional information about their water loss control efforts. For example:

- Several utilities indicated that they contact customers with unusually high water usage to identify possible leaks.
- One utility surveys all of its fire hydrants for leaks as part of its annual system flushing procedures. This utility also hires specialists to conduct a leak detection survey of its entire system about once every three years.
- One utility reported looking for water main leaks as part of its city's street paving and seal coating programs, and this utility attempts to survey 25 percent of its distribution mains annually.
- One utility supplies low-flow showerheads and faucet aerators to new customers when they sign up for water service.
- One utility was in the process of creating a comprehensive water conservation plan.
- One utility provides technical assistance to commercial and industrial customers to assist them in reducing their water usage.
- One utility uses its automatic meter reading system to track the amount of water sold on a daily basis, which allows utility staff to notify customers in a timely manner if consumption rises unexpectedly.
- One utility installed variable speed drive motor controls on its pumps to adjust flow rates to meet demand, which also minimizes high pressure in the water system and reduces the amount of energy used to pump water.

Water Conservation Program Financing: Questions 20-23

The survey asked utilities whether they had a dedicated budget for water conservation and efficiency programs. Utilities that responded "yes" were then asked a series of questions about their program finances. Only 17 of the 220 (7.7 percent) utilities answering this question indicated they had a dedicated budget for water conservation. Six of the utilities were Class AB, six were Class C, and five were Class D. These utilities indicated that they spent between $1,000 and $75,000 annually on their water conservation efforts. In addition to water rates, six utilities relied on user fees, two utilities used general purpose tax revenue, and one utility received grants from government agencies to fund their water conservation and efficiency efforts in 2007. These

utilities also reported having from .05 to 2.0 full-time equivalent staff members who worked on water conservation and efficiency programs in 2007.

Other Efforts in the Community: Questions 24-27

The survey asked whether each utility's community had enacted ordinances to regulate outdoor water use. Of the 218 utilities responding, 15.6 percent said their municipality had enacted ordinances to restrict outdoor water use, such as limiting lawn watering. In addition, 13 of the 217 respondents (6.0 percent) said their community had enacted ordinances that require new developments to meet landscaping requirements that promote efficient outdoor water use. Appendix 3 contains a map showing those communities that have enacted lawn watering restrictions.

Based on the responses to this survey, the PSC reviewed municipal ordinances in 55 Wisconsin communities, including some that did not respond to the survey, to identify the range of water use restrictions around the state. These ordinances are described in a separate report, which can be found at: http://psc.wi.gov/utilityinfo/water/newsinfo/document/WIWaterUseRegulation.pdf.

Respondents were also asked to identify whether they were aware of water reuse or wastewater recycling projects in their communities. Of the 218 utilities that responded, 16.1 percent reported that they knew of at least one such project. Some examples included promoting rain barrels, planting rain gardens, creating a stormwater utility, and recycling water through various commercial and industrial projects, such as car washes.

Finally, utilities were asked to identify any public or private partnerships within their communities that exist to promote water conservation and efficiency. Thirteen of the 217 respondents (6.5 percent) indicated that such partnerships existed in their communities. While some partnerships involved different municipal departments, others included local businesses or non-profit groups. Some specific examples include:

- becoming a Groundwater Guardian Community, which is a network of communities supported by The Groundwater Foundation that pledge to educate citizens and protect groundwater resources;
- partnering with local companies on specific projects;
- partnering with surrounding communities or utilities;
- creating a stormwater consortium or partnering with the sewage district;
- working with community, state, or national non-profit groups; and
- partnering with schools to teach children about water conservation.

PSC Involvement: Questions 28-29

In order to assist the PSC in prioritizing its water conservation and efficiency efforts, the survey asked respondents to rank various program areas from 1 to 5 based their importance to their utility, with 5 being the most important. As shown in Table 3, the utilities ranked the identification of water conservation benchmarks and best practices as their highest priority. Providing assistance to utilities in developing and implementing water conservation and efficiency plans ranked second-highest, while managing a statewide rebate program or offering other financial incentives to encourage water-efficient behaviors ranked as the lowest priority for the responding utilities.

Table 3: Importance of Water Conservation Program Areas

	Least Important (1)	→			Most Important (5)	Average Rating	Number of Responses
Identifying water conservation benchmarks and best practices for utilities	10.4%	18.1%	22.3%	21.8%	27.5%	3.48	191
Providing assistance to utilities in developing and implementing water conservation and efficiency plans	7.8%	15.5%	22.8%	29.5%	24.4%	3.38	192
Providing information about water conservation on the PSC website or through regular intervals	23.9%	24.9%	16.8%	21.3%	13.2%	2.86	196
Designing conservation-oriented water rates	26.0%	21.4%	23.4%	15.1%	14.1%	2.76	191
Managing a statewide program that offers rebates or other financial incentives to utility customers to encourage water-efficient behaviors	23.3%	22.8%	18.7%	15.0%	20.2%	2.70	192

V. APPENDIX 1: SURVEY QUESTIONS

1. Enter the name of your utility.	
2. Enter your PSC utility ID number.	
3. Enter contact information for the person completing this survey.	
	Name
	Job Title
	Email Address
	Phone Number
4. Select the number of years you have been in your current position.	
	Less than 1 year
	Between 1 and 4 years
	Between 5 and 10 years
	More than 10 years
5. Approximately how many individuals were served by your utility in 2007?	
6. What is the estimated size of your utility's service area, in square miles?	
7. Identify the watersheds where your utility's service area is located. (Check all that apply).	
	Mississippi River
	Lake Michigan
	Lake Superior
	Unknown
8. What is the maximum daily amount of water that can be supplied by your utility (in 1,000s of gallons per day)?	
9. Does your utility have a written water loss control plan?	
10. Does your utility evaluate water loss from the following system components as part of its regular leak detection and water loss control efforts?	
	Water Mains

	Service Laterals and Connections
	Hydrants and Valves
	Storage Facilities
	Treatment Facilities
	Pumping Facilities
11. Estimate the percentage of water mains that are surveyed for leaks annually.	
	We do not regularly survey water mains for leaks
	1 to 25 percent
	26 to 50 percent
	51 to 75 percent
	76 to 100 percent
12. Estimate the percentage of service laterals and connections that are surveyed for leaks annually.	
	We do not regularly survey laterals for leaks
	1 to 25 percent
	26 to 50 percent
	51 to 75 percent
	76 to 100 percent
13. Estimate the percentage of your utility's distribution and storage system that has been mapped using a Geographic Information System (GIS).	
	We do not have a GIS
	1 to 25 percent
	26 to 50 percent
	51 to 75 percent
	76 to 100 percent
14. How frequently does your utility test its 5/8, 3/4, and 1-inch customer meters for accuracy?	
	Never
	Less than once every 10 years

	About once every 10 years
	More than once every 10 years
	Not applicable: Our utility replaces all meters within 20 years of the original installation date
15. How frequently does your utility test its supply (pump station) meters for accuracy?	
	Never
	Less than once every 2 years
	About once every 2 years
	More than once every 2 years
16. Which methods does your utility use to test its supply (pump station) meters? (Check all that apply).	
	Not applicable: Our utility does not have supply meters
	On-site by utility staff
	On-site by contractors or manufacturer representatives
	Meters are sent off-site for testing
	Not applicable: Our utility does not have supply meters
17. What is the likelihood that your utility will implement the following conservation and efficiency measures within the next 3 years?	
	Increase the frequency of meter testing and replacement
	Adopt a written water loss control program
	Manage pressure to minimize leaks in distribution system
	Switch to monthly customer bills
	Apply to the PSC for conservation-oriented water rates
	Conduct water audits of residential customers
	Conduct water audits of non-residential customers
	Conduct water audits of customers with large landscape irrigation needs
	Provide rebates or other financial incentives to residential customers
	Provide rebates or other financial incentives to non-residential customers
	Develop a public information and education program

	Join EPA's WaterSense program
	Create a citizen water conservation advisory group
	Promote projects that reuse or recycle water
	Encourage the use of rain barrels or rain gardens
18. Which of the following does your utility use to inform customers about its water conservation and efficiency efforts? (Check all that apply).	
	Local TV or radio commercials
	Newspaper advertisements or letters to the editor
	Water bill inserts
	K-12 school programs
	Water conservation web pages
	Special mailing to customers
	Special events
	None of the above
19. Provide any additional comments necessary to describe your utility's existing water conservation and efficiency efforts.	
20. Does your utility have a dedicated budget for water conservation and efficiency?	
21. Approximately how much was spent by your utility on water conservation and efficiency efforts in 2007?	
22. Approximately how many full-time equivalent staff were dedicated to water conservation and efficiency programs at your utility in 2007?	
23. In addition to water rates, which of the following sources of funding were used to support your utility's water conservation and efficiency efforts in 2007? (Check all that apply).	
	General purpose taxes
	User fees
	Grants from government agencies
	Private or non-profit funds
	None of the above
24. Has your community enacted ordinances to restrict outdoor water use, such as lawn watering?	
25. Has your community enacted ordinances that require new development to meet landscaping requirements	

that promote efficient outdoor water use?	
26. Are you aware of any water reuse or recycling projects in your community?	
	If yes, please describe. Include the name of the project or facility, the volume of water reused or recycled, and the year the project began.
27. Are you aware of any public or private partnerships within your community that exist to promote water conservation and efficiency?	
	If yes, please describe. Include the name of the partnership and the year it began, if known.
28. To help the Public Service Commission prioritize its water conservation and efficiency efforts, please rank each of the following program areas based on their order of importance to your utility.	
	Providing information about water conservation on the PSC website or through regular newsletters
	Designing conservation-oriented water rates
	Identifying water conservation benchmarks and best practices for utilities
	Providing assistance to utilities in developing and implementing water conservation and efficiency plans
	Managing a statewide program that offers rebates or other financial incentives to utility customers to encourage water-efficient behaviors
29. Provide any additional comments or suggestions related to the PSC's water conservation and efficiency efforts.	

VI. APPENDIX 2: INFORMATION ABOUT RESPONDING UTILITIES

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
0250	Ashland Water Utility*	AB	9	Lake Superior	1,200,000**	1,208,000	687,890	210,665,000	104,613,000	2,528	41,382	113
0400	Beaver Dam Water Utility	AB	12	Mississippi River	5,500,000	3,277,000	2,035,274	549,140,000	247,817,000	5,740	43,174	118
0455	Beloit Water Utility	AB	20	Mississippi River	20,304,000	9,739,000	6,600,827	1,989,474,000	749,781,000	13,875	54,038	148
0760	Brookfield Municipal Water Utility	AB	15	Mississippi River/ Lake Michigan	16,105,000	6,914,000	3,749,934	1,195,067,000	727,350,000	8,738	83,240	228
1000	Cedarburg Light & Water Utility	AB	4	Lake Michigan	4,800,000	2,731,000	1,340,652	410,474,000	225,248,000	3,445	65,384	179
1120	Chippewa Falls Department of Public Utility	AB	12	Mississippi River	9,375,000	6,896,000	3,697,326	1,234,911,000	233,855,000	4,168	56,107	154
1710	Eagle River Light & Water Commission*	AB	2	Mississippi River	2,160,000	1,065,000	275,121	77,156,000	21,175,000	592	35,769	98
1740	Eau Claire Municipal Water Utility	AB	36	Mississippi River	24,000,000	16,593,000	9,553,466	2,964,665,000	1,385,600,000	22,805	60,759	166
1990	Fitchburg Water Utility	AB	7.38	Mississippi River	7,416,000	3,938,000	2,173,589	708,992,000	340,262,000	5,098	66,744	183

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
2010	Fond du Lac Water Utility	AB	20	Lake Michigan	15,000,000	14,925,000	5,406,688	1,461,319,000	668,407,000	14,060	47,540	130
2060	Fort Atkinson Water Utility	AB	NR	Mississippi River	8,000,000	3,412,000	1,845,775	674,091,000	259,789,000	4,035	64,384	176
2310	Grand Chute Sanitary District No. 1	AB	14	Lake Michigan	7,632,000	3,214,000	2,183,814	675,501,000	296,656,000	6,605	44,914	123
2350	Green Bay Water Utility	AB	50	Lake Michigan	42,000,000	30,281,000	19,675,611	6,652,553,000	1,755,213,000	31,721	55,333	152
2620	Howard Water & Sewer Department	AB	15.5	Lake Michigan	5,000,000	2,932,000	2,004,647	725,217,000	365,042,000	4,950	73,746	202
2630	Hudson Public Utilities	AB	7.5	Mississippi River	3,500,000	5,908,000	2,482,825	735,126,000	405,818,000	5,921	68,539	188
2740	Janesville Water Utility	AB	32	Mississippi River	32,000,000	18,863,000	12,271,367	3,540,341,000	1,378,971,000	21,942	62,846	172
2800	Kaukauna Utilities	AB	4	Lake Michigan	4,752,000	2,261,000	1,399,230	409,568,000	270,483,000	5,549	48,744	134
2920	La Crosse Water Utility	AB	22	Mississippi River	37,987,200	22,519,000	10,829,693	3,337,843,000	933,367,000	13,017	71,704	196
3280	Madison Water Utility	AB	68.7	Mississippi River	70,416,000	53,973,000	31,211,414	10,169,930,000	3,424,132,000	55,500	61,696	169
3320	Manitowoc Public Utilities	AB	25	Lake Michigan	14,000,000	19,598,000	9,157,868	2,512,468,000	668,277,000	12,269	54,469	149
3370	Marinette Municipal Water Utility	AB	NR	Lake Michigan	4,500,000	4,270,000	2,616,986	856,852,000	201,499,000	4,150	48,554	133

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
3420	Marshfield Electric & Water Department	AB	16	Mississippi River	4,000,000	2,987,000	2,024,838	674,055,000	289,541,000	7,077	40,913	112
3550	Menasha (Town) Utility District	AB	15	Lake Michigan	6,780,000	4,584,000	2,936,830	909,841,000	357,870,000	7,278	49,171	135
3560	Menasha Electric & Water Utilities	AB	2.5	Lake Michigan	6,000,000	4,127,000	2,720,449	789,607,000	217,177,000	4,761	45,616	125
3580	Menomonee Falls Water Utility	AB	21	Mississippi River/ Lake Michigan	9,510,000	6,259,000	3,658,011	1,055,985,000	611,108,000	13,645	44,786	123
3640	Middleton Municipal Water Utility	AB	4	Mississippi River	7,898,000	4,456,000	2,432,786	805,828,000	327,841,000	4,739	69,179	190
3720	Milwaukee Water Works	AB	NR	Lake Michigan	380,000,000	164,600,000	114,719,699	35,049,923,000	12,101,483,000	143,641	84,248	231
3820	Monroe Municipal Water Utility	AB	5	Mississippi River	9,000,000	2,422,000	1,691,778	534,161,000	195,262,000	3,685	52,988	145
4030	Neenah Water Utility	AB	16	Lake Michigan	12,000,000	5,940,000	3,681,970	1,293,871,000	477,675,000	9,862	48,436	133
4090	New Berlin Water Utility	AB	25	Lake Michigan	6,800,000	5,641,000	3,183,822	999,883,000	533,306,000	7,773	68,610	188
4130	New London Electric & Water Utility	AB	9	Lake Michigan	4,750,000	3,778,000	2,155,948	713,460,000	115,050,000	2,360	48,750	134
4310	Oak Creek Water & Sewer Utility	AB	71	Lake Michigan	20,000,000	13,760,000	7,782,449	2,753,197,000	513,591,000	7,588	67,685	185
4340	Oconomowoc Utilities	AB	7	Mississippi River	5,760,000	4,216,000	1,862,879	576,772,000	341,398,000	5,561	61,391	168

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
4410	Onalaska Municipal Water Utility	AB	NR	Mississippi River	14,112,000	6,201,000	2,185,997	759,112,000	475,202,000	5,579	85,177	233
4480	Oshkosh Water Utility	AB	25	Lake Michigan	16,000,000	9,723,000	6,865,504	1,946,704,000	905,886,000	20,284	44,660	122
4700	Platteville Water & Sewer Utility	AB	5.2	Mississippi River	2,433,000	1,756,000	896,696	273,153,000	127,465,000	2,775	45,933	126
4900	Racine Waterworks Commission	AB	60	Lake Michigan	60,000,000	35,830,000	23,039,315	6,741,408,000	1,872,066,000	29,477	63,509	174
5370	Sheboygan Water Utility	AB	16	Lake Michigan	34,000,000	23,251,000	14,274,178	4,986,513,000	975,659,000	17,175	56,807	156
5590	South Milwaukee Water Utility	AB	6	Lake Michigan	8,000,000	3,494,000	2,285,523	751,486,000	355,335,000	5,925	59,972	164
5690	Stevens Point Municipal Water Utility	AB	16.89	Mississippi River	13,400,000	12,849,000	6,575,238	2,076,665,000	484,265,000	7,248	66,814	183
5750	Stoughton Water Utility	AB	4	Mississippi River	6,000,000	1,974,000	1,364,488	436,483,000	236,325,000	4,339	54,465	149
5780	Sturgeon Bay Utilities	AB	90	Lake Michigan	5,000,000	2,966,000	1,536,570	392,077,000	173,330,000	3,925	44,161	121
5820	Superior Water Light & Power Company	AB	NR	Lake Superior	6,000,000	4,182,000	3,131,315		421,458,000	9,273	45,450	125
5990	Two Rivers Water & Light Utility	AB	10	Lake Michigan	3,000,000	1,831,000	1,173,504	352,406,000	229,950,000	4,799	47,916	131
6240	Waukesha Water Utility	AB	25	Mississippi River	15,400,000	9,591,000	7,174,471	2,447,719,000	1,086,542,000	16,677	65,152	178

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
6320	Wauwatosa Water Utility	AB	13.25	Lake Michigan	10,000,000	8,185,000	5,273,227	1,645,581,000	939,074,000	14,365	65,372	179
6380	West Bend Water Utility	AB	15	Lake Michigan	11,044,800	4,572,000	2,939,556	1,019,880,000	605,702,000	10,259	59,041	162
6700	Wisconsin Rapids Waterworks & Light	AB	54	Mississippi River	5,500,000	3,843,000	2,595,016	798,174,000	328,903,000	7,020	46,852	128
0180	Antigo Water Utility	C	3	Mississippi River	2,000,000	1,739,000	1,087,293	306,726,000	107,869,000	3,211	33,594	92
0230	Argyle Municipal Electric & Water Utility	C	1	Mississippi River	880,000	160,000	60,140	17,435,000	13,549,000	327	41,434	114
0350	Bangor Municipal Utility	C	3	Mississippi River	1,152,000	270,000	122,000	40,901,000	25,295,000	511	49,501	136
0380	Barron Light & Water Utility	C	1	Mississippi River	3,600,000	2,799,000	1,510,896	536,552,000	49,963,000	1,068	46,782	128
0430	Bellevue Water Utility	C	14	Lake Michigan	NR	2,308,000	1,261,638	395,031,000	221,643,000	3,700	59,904	164
0440	Belmont Municipal Water & Electric Utility	C	1	Mississippi River	875,000	304,000	211,214	64,699,000	14,809,000	396	37,396	102
0460	Benton Municipal Electric & Water Utility	C	4	Mississippi River	770,000	132,000	57,340	18,966,000	15,809,000	411	38,465	105
0480	Berlin Municipal Water & Sewer Utility	C	8	Lake Michigan	4,608,000	1,598,000	845,693	304,361,000	88,623,000	1,806	49,071	134

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
0531	Black Earth Water Utility	C	1.5	Mississippi River	270,000	172,000	103,989	27,933,000	21,775,000	500	43,550	119
0970	Cashton Municipal Light & Water	C	5	Mississippi River	NR	360,000	85,540	25,336,000	17,660,000	460	38,391	105
1100	Chilton Municipal Water Utility	C	4	Lake Michigan	1,400,000	1,179,000	792,153	233,464,000	58,321,000	1,345	43,361	119
1200	Clintonville Water & Electric Utility	C	NR	Lake Michigan	1,500,000	1,032,000	448,838	142,280,000	73,470,000	1,693	43,396	119
1300	Columbus Water & Light Department	C	NR	Mississippi River	2,500,000	824,000	493,167	143,890,000	76,121,000	1,812	42,009	115
1390	Cottage Grove Water & Sewer Utility	C	3	Mississippi River	4,300,000	993,000	477,975	165,614,000	123,701,000	2,293	53,947	148
1470	Cuba City Electric & Water Utility	C	NR	Mississippi River	NR	738,000	227,956	48,516,000	34,848,000	775	44,965	123
1545	Darboy Joint Sanitary District No. 1	C	7	Lake Michigan	3,996,000	1,601,000	844,638	277,530,000	228,574,000	3,950	57,867	159
1560	Darlington Municipal Water & Sewer Utility	C	1.49	Mississippi River	1,100,000	NR	250,704	80,486,000	36,804,000	968	38,021	104
1580	DeForest Municipal Water Utility	C	6	Mississippi River	1,790,000	1,309,000	683,932	238,182,000	164,034,000	2,825	58,065	159
1650	Dodgeville Water Utility	C	4	Mississippi River	2,015,000	891,000	557,668	131,060,000	75,182,000	1,724	43,609	119
1730	East Troy Municipal Water Utility	C	1	Mississippi River	1,932,480	1,023,000	560,033	201,830,000	57,004,000	1,136	50,180	137

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
1800	Elkhorn Light & Water	C	6	Mississippi River	3,456,000	1,624,000	1,037,775	282,260,000	145,395,000	3,234	44,958	123
1820	Ellsworth Municipal Water & Sewer Utility	C	5	Mississippi River	1,382,000	404,000	253,723	75,057,000	46,595,000	957	48,689	133
1980	Fennimore Water & Light Plant	C	2	Mississippi River	2,232,000	424,000	235,460	68,237,000	37,942,000	967	39,237	107
2000	Florence Utility Commission	C	4.5	Lake Michigan	3,555,000	385,000	81,438	22,601,000	11,151,000	273	40,846	112
2090	Fox Point Water Utility	C	2.8	Lake Michigan	100,000**	1,761,000	647,671	243,511,000	185,935,000	2,378	78,190	214
2470	Hartford Utilities	C	7.8	Mississippi River	3,398,400	2,587,000	1,678,375	524,444,000	235,311,000	4,483	52,490	144
2480	Hartland Municipal Water Utility	C	7	Lake Michigan	6,926,000	2,504,000	1,314,044	335,549,000	221,169,000	2,473	89,433	245
2720	Jackson Water Utility	C	4	Lake Michigan	5,000,000	1,318,000	584,175	200,740,000	127,580,000	2,527	50,487	138
2790	Juneau Utility Commission	C	5	Mississippi River/ Lake Michigan	1,550,000	534,000	248,096	79,122,000	32,578,000	757	43,036	118
2830	Kewaskum Municipal Water Utility	C	2	Lake Michigan	650,000**	652,000	322,753	99,159,000	63,060,000	1,260	50,048	137
2840	Kewaunee Municipal Water Utility	C	4	Lake Michigan	2,160,000	504,000	308,967	95,097,000	45,156,000	1,095	41,238	113
2850	Kiel Utilities	C	1.5	Lake Michigan	4,500,000	913,000	490,923	139,025,000	73,932,000	1,466	50,431	138

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
2870	Kimberly Municipal Water Utility	C	3	Lake Michigan	4,300,000	2,613,000	1,579,296	521,990,000	103,298,000	2,403	42,987	118
2940	Ladysmith Municipal Water Utility	C	4.5	Mississippi River	2,000,000	562,000	357,605	116,635,000	55,656,000	1,175	47,367	130
2973	Lake Como Sanitary District # 1	C	2.7	Mississippi River	200,000	NR	125,600	40,130,000	37,496,000	1,169	32,075	88
2980	Lake Geneva Utility Commission	C	10	Mississippi River	6,500,000	1,903,000	1,402,852	390,524,000	151,647,000	3,228	46,979	129
2985	Lakeland Sanitary District #1	C	16	Mississippi River	1,800,000	1,010,000	488,274	122,699,000	20,497,000	635	32,279	88
3140	Little Chute Municipal Water Department	C	5.58	Lake Michigan	3,200,000	2,067,000	1,328,836	361,749,000	179,436,000	3,706	48,418	133
3160	Lodi Municipal Light & Water Utility	C	1	Mississippi River	3,672,000	1,101,000	356,586	119,221,000	53,842,000	1,077	49,993	137
3450	Mauston Municipal Water Utility	C	5	Mississippi River	3,816,000	859,000	503,753	155,946,000	56,118,000	1,228	45,699	125
3460	Mayville Municipal Water Utility	C	3.9	Mississippi River	3,909,000	1,332,000	640,233	183,976,000	79,513,000	1,756	45,281	124
3490	McFarland Water & Sewer Utility	C	NR	Mississippi River	NR	1,221,000	599,066	202,798,000	155,831,000	2,582	60,353	165
3610	Merrill Water Utility	C	2	Mississippi River	7,760,000	1,447,000	770,866	241,360,000	142,004,000	3,348	42,415	116
3890	Mosinee Municipal Water & Sewer Utility	C	20	Mississippi River	1,400,000	861,000	502,271	121,297,000	70,890,000	1,521	46,607	128

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
3950	Mount Horeb Water & Sewer Utility	C	4	Mississippi River	4,000,000	1,131,000	580,025	161,609,000	132,826,000	2,479	53,580	147
3980	Mukwonago Municipal Water Utility	C	6.24	Mississippi River/ Lake Michigan	3,500,000	1,227,000	676,685	214,119,000	120,764,000	2,135	56,564	155
4005	Muskego Water Public Utility	C	12	Mississippi River/ Lake Michigan	4,000,000	2,152,000	957,362	294,486,000	217,613,000	3,145	69,193	190
4110	New Holstein Public Utility	C	3	Lake Michigan	3,354,000	539,000	330,145	107,329,000	60,950,000	1,213	50,247	138
4120	New Lisbon Electric & Water Utility	C	4.1	Mississippi River	1,296,000	630,000	285,685	84,406,000	17,899,000	453	39,512	108
4140	New Richmond Municipal Water Utility	C	10	Mississippi River	2,000,000**	2,413,000	1,057,808	321,180,000	146,973,000	2,877	51,086	140
4150	Niagara Municipal Water Utility	C	2.75	Lake Michigan	864,000	430,000	274,978	77,102,000	33,524,000	754	44,462	122
4350	Oconto Utility Commission	C	6	Lake Michigan	12,000,000**	1,077,000	387,975	111,765,000	75,308,000	1,653	45,558	125
4360	Oconto Falls Water & Light Commission	C	NR	Lake Michigan	NR	569,000	349,679	105,913,000	42,474,000	916	46,369	127
4400	Omro Water Utility	C	5	Lake Michigan	720,000	415,000	242,468	73,632,000	48,374,000	1,310	36,927	101
4550	Park Falls Municipal Water Utility	C	4	Mississippi River	1,500,000**	1,580,000	723,260	242,415,000	52,658,000	1,094	48,133	132

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
4585	Pell Lake Sanitary District No. 1	C	NR	Mississippi River	576,000	365,000	226,011	73,557,000	70,047,000	1,570	44,616	122
4620	Pewaukee (Village) Water Utility	C	3	Mississippi River	3,080,000	1,466,000	819,301	259,477,000	100,093,000	1,640	61,032	167
4625	Pewaukee Water Utility	C	NR	Lake Michigan	NR	2,531,000	1,220,759	399,485,000	182,500,000	2,611	69,897	191
4730	Pleasant Prairie Water Utility	C	15	Mississippi River/ Lake Michigan	20,160,000**	5,765,000	2,072,145	655,569,000	241,142,000	3,555	67,832	186
4760	Portage Water Utility	C	5	Mississippi River/ Lake Michigan	5,650,000	2,603,000	1,444,696	436,525,000	153,225,000	2,737	55,983	153
4820	Prairie du Chien Municipal Water Utility	C	1	Mississippi River	2,300,000**	2,300,000	1,365,507	429,860,000	109,851,000	2,023	54,301	149
4830	Prairie du Sac Municipal Electric & Water	C	2	Mississippi River	2,500,000	751,000	390,129	136,571,000	87,600,000	1,472	59,511	163
4890	Pulaski Water Department	C	2.5	Lake Michigan	1,929,000	1,184,000	295,005	94,048,000	52,050,000	1,114	46,724	128
5010	Rhinelander Water Utility	C	NR	Mississippi River	3,888,000	2,622,000	1,590,282	471,675,000	124,629,000	2,859	43,592	119
5110	River Falls Municipal Utility	C	11	Mississippi River	7,000,000	2,697,000	1,192,236	398,783,000	207,290,000	3,901	53,138	146

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
5180	Rothschild Municipal Water Utility	C	10	Mississippi River	3,024,000	1,210,000	613,301	188,522,000	53,307,000	1,222	43,623	120
5260	Sauk City Water & Light Utility	C	6	Mississippi River	1,000,000	718,000	333,721	106,462,000	73,598,000	1,481	49,695	136
5270	Saukville Municipal Water Utility	C	4	Lake Michigan	1,200,000**	1,798,000	1,413,238	453,731,000	75,223,000	1,393	54,001	148
5320	Seymour Municipal Water Utility	C	3	Lake Michigan	1,778,000	1,026,000	294,378	89,089,000	52,001,000	1,297	40,093	110
5670	Stanley Municipal Waterworks	C	1	Mississippi River	1,300,000	1,112,000	777,255	252,264,000	27,010,000	804	33,595	92
5930	Tomahawk Municipal Water Utility	C	8	Mississippi River	891,164	780,000	445,589	141,732,000	59,500,000	1,312	45,351	124
6100	Verona Water Utility	C	7	Mississippi River	4,180,000	2,274,000	1,055,225	371,728,000	215,863,000	3,509	61,517	169
6140	Viroqua Municipal Water Utility	C	32	Mississippi River	311,000**	767,000	409,855	119,091,000	61,491,000	1,646	37,358	102
6210	Waterford Water & Sewer Utility	C	10	Lake Michigan	1,944,000	970,000	557,521	145,620,000	98,030,000	1,761	55,667	153
6220	Waterloo Water & Light Commission	C	4	Mississippi River	1,600,000	615,000	312,682	94,438,000	55,836,000	1,082	51,604	141
6260	Waunakee Water & Light Commission	C	5	Mississippi River	5,652,000	2,808,000	1,364,989	444,498,000	256,242,000	3,583	71,516	196

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
6400	Westby Municipal Electric & Water Utility	C	5	Mississippi River	1,000,000	502,000	268,293	86,989,000	36,740,000	902	40,732	112
6430	West Salem Municipal Joint Water & Sewer Utility	C	2	Mississippi River	1,800,000	1,074,000	513,910	177,630,000	83,396,000	1,360	61,321	168
6520	Whitewater Municipal Water Utility	C	9	Mississippi River	7,589,000	3,336,000	2,008,252	636,710,000	134,310,000	2,995	44,845	123
6540	Williams Bay Municipal Water Utility	C	NR	Mississippi River	NR	604,000	288,463	97,707,000	82,844,000	1,869	44,325	121
6620	Wisconsin Dells Municipal Water Utility	C	21.8	Mississippi River	5,544,000	1,683,000	818,836	241,708,000	58,239,000	1,030	56,543	155
0051	Algoma Sanitary District No. 1	D	9	Lake Michigan	1,332,000	522,000	179,123	53,272,000	47,599,000	640	74,373	204
0080	Alma Municipal Water Utility	D	8	Mississippi River	576,000	170,000	80,868	25,712,000	6,995,000	225	31,089	85
0220	Arena Municipal Water Utility	D	1	Mississippi River	700,000	223,000	77,490	24,018,000	14,547,000	310	46,926	129
0270	Augusta Municipal Water & Sewer Utility	D	NR	Mississippi River	NR	563,000	319,016	103,579,000	21,722,000	491	44,240	121
0280	Avoca Municipal Water Utility	D	10	Mississippi River	144,000	108,000	39,290	9,686,000	7,837,000	280	27,989	77

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
0310	Bagley Municipal Water Utility	D	3	Mississippi River	NR	285,000	33,636	11,002,000	10,015,000	374	26,778	73
0381	Bay City Water Utility	D	6.5	Mississippi River	200,000	348,000	41,734	11,893,000	6,253,000	137	45,642	125
0385	Bayfield Water & Sewer Utility	D	7	Lake Superior	1,296,000	463,000	145,959	23,446,000	9,871,000	305	32,364	89
0405	Beaver Brook Sanitary District No. 1	D	0.3	Mississippi River	1,720,000	NR	18,082	6,600,000	2,640,000	58	45,517	125
0420	Belleville Municipal Water & Sewer Utility	D	4	Mississippi River	1,008,000	710,000	188,682	58,318,000	40,604,000	860	47,214	129
0510	Biron Municipal Water Utility	D	4	Mississippi River	155,000**	295,000	118,466	41,738,000	13,601,000	329	41,340	113
0627	Bluffview Sanitary District	D	2	Mississippi River	400,000	NEW UTILITY IN 2008						
0720	Bristol Water Utility	D	34	Mississippi River	2,448,000	301,000	32,882	73,330,000	24,983,000	353	70,773	194
0790	Brownsville Water Department	D	1.2	Mississippi River	400,000	212,000	52,351	16,768,000	11,145,000	211	52,820	145
0920	Cambridge Water & Sewer Utility	D	1	Mississippi River	1,920,000	259,000	184,800	45,692,000	24,398,000	542	45,015	123
0930	Cameron Municipal Water Utility	D	2.5	Mississippi River	1,060,000	368,000	211,868	39,100,000	27,313,000	709	38,523	106

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
0950	Camp Douglas Municipal Water Utility	D	2	Mississippi River	120,000**	164,000	50,940	15,178,000	9,672,000	195	49,600	136
0955	Cascade Water Utility	D	1	Lake Michigan	460,000	100,000	58,088	17,369,000	12,441,000	268	46,422	127
1080	Chetek Municipal Water Utility	D	1.5	Mississippi River	1,440,000	400,000	212,688	57,136,000	32,852,000	821	40,015	110
1150	Clayton Municipal Water Utility	D	5	Mississippi River	900,000	402,000	63,860	17,158,000	9,107,000	241	37,788	104
1190	Clinton Municipal Waterworks	D	1	Mississippi River	2,448,000	539,000	224,181	76,153,000	32,538,000	738	44,089	121
1240	Cochrane Municipal Water Utility	D	2	Mississippi River	200,000	175,000	51,315	11,744,000	6,336,000	178	35,596	98
1250	Colby Municipal Water Utility	D	1.5	Mississippi River	360,000	159,000	116,625	38,300,000	20,817,000	595	34,987	96
1310	Combined Locks Water Utility	D	1.8	Lake Michigan	NR	NR	274,329	81,068,000	60,882,000	1,372	44,375	122
1435	Crivitz Water Utility	D	5	Lake Michigan	324,000**	400,000	137,997	41,154,000	15,690,000	372	42,177	116
1540	Dane Water & Sewer Utility	D	4	Mississippi River	900,000	157,000	67,263	22,750,000	18,233,000	316	57,699	158
1550	Darien Waterworks &Sewer System	D	0.9	Mississippi River	2,664,000	249,000	103,934	32,170,000	24,375,000	620	39,315	108
1615	Ledgeview Sanitary District No. 2	D	15	Lake Michigan	1,200,000	988,000	471,948	141,430,000	104,236,000	1,583	65,847	180

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
1620	Dickeyville Water Utility	D	2	Mississippi River	748,000	221,000	68,710	22,999,000	16,335,000	363	45,000	123
1675	Downsville Sanitary District	D	1	Mississippi River	122,400	70,000	21,764	5,900,000	2,841,000	72	39,458	108
1680	Dresser Municipal Water Utility	D	2.5	Mississippi River	1,200,000	246,000	111,858	34,886,000	16,504,000	314	52,561	144
1690	Durand Water Works	D	3	Mississippi River	1,300,000	480,000	215,299	64,694,000	34,769,000	659	52,760	145
1700	Eagle Municipal Water Utility	D	1.2	Mississippi River	1,094,000	396,000	136,855	45,378,000	38,309,000	664	57,694	158
1770	Elcho Sanitary District No. 1	D	1	Lake Michigan	1,000,000	126,000	34,597	7,611,000	4,818,000	166	29,024	80
1810	Elk Mound Municipal Water & Sewer Utility	D	3	Mississippi River	432,000	115,000	65,825	19,868,000	12,614,000	260	48,515	133
1860	Embarrass Water & Sewer Utility	D	NR	Lake Michigan	300,000	78,000	27,923	9,365,000	5,981,000	145	41,248	113
1930	Fall River Municipal Water Utility	D	NR	Mississippi River	NR	383,000	205,304	70,105,000	25,974,000	530	49,008	134
2040	Footville Water Utility	D	4	Mississippi River	1,152,000	111,000	48,351	15,438,000	13,642,000	304	44,875	123
2045	Forest Junction Utilities	D	NR	Lake Michigan	345,600	80,000	37,386	12,617,000	9,821,000	215	45,679	125
2080	Fox Lake Water Utility	D	4	Lake Michigan	504,000	372,000	123,510	37,368,000	23,453,000	563	41,657	114

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
2157	Fulton Water Utility	D	1	Mississippi River	230,000	NR	15,038	5,489,000	5,489,000	174	31,546	86
2220	Gillett Water & Sewer Commission	D	7	Lake Michigan	2,000,000	958,000	265,625	90,963,000	22,518,000	585	38,492	105
2230	Gilman Water Utility	D	2	Mississippi River	317,000	112,000	32,211	9,716,000	4,631,000	153	30,268	83
2288	Goodman Sanitary District # 1	D	1	Lake Michigan	432,000	150,000	27,364	4,747,000	2,990,000	139	21,511	59
2330	Grantsburg Municipal Water Utility	D	<1	Mississippi River	842,400	560,000	182,197	45,658,000	22,315,000	494	45,172	124
2428	Lake Hallie Public Works	D	12	Mississippi River	992,000	666,000	313,701	100,226,000	79,972,000	1,320	60,585	166
2460	Harmony Grove Sanitary District #1	D	NR	Mississippi River	NR	352,000	118,655	41,437,000	40,995,000	699	58,648	161
2485	Haugen Water Utility	D	NR	Mississippi River	430,000	45,000	19,479	5,985,000	5,007,000	130	38,515	106
2490	Hawkins Municipal Water & Sewer Utility	D	0.8	Mississippi River	316,000	119,000	34,162	7,387,000	4,777,000	159	30,044	82
2500	Hayward Waterworks & Sewer	D	2.8	Mississippi River	3,744,000	752,000	374,611	123,406,000	30,487,000	741	41,143	113
2550	Hillsboro Municipal Water Utility	D	4	Mississippi River	864,000	299,000	114,014	40,388,000	21,092,000	551	38,279	105
2573	Hobart Water Utility	D	6	Lake Michigan	NR	650,000	261,874	79,913,000	76,371,000	924	82,653	226

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
2610	Hortonville Water & Sewer	D	NR	Lake Michigan	NR	290,000	183,638	52,239,000	39,227,000	958	40,947	112
2640	Hurley Water Utility	D	3.3	Lake Superior	200,000	NR	153,647	44,985,000	20,301,000	659	30,806	84
2901	Kronenwetter Water Utility	D	11	Mississippi River	750,000**	837,000	350,063	110,367,000	91,793,000	2,023	45,375	124
2960	La Farge Municipal Water & Sewer Utility	D	8.19	Mississippi River	128,000	116,000	61,529	19,288,000	11,552,000	324	35,654	98
3095	Lawrence Water Utility	D	5.5	Lake Michigan	750,000	NR	156,504	54,408,000	33,413,000	603	55,411	152
3130	Linden Municipal Water Utility	D	4	Mississippi River	575,000	136,000	45,266	14,589,000	12,114,000	209	57,962	159
3190	Lone Rock Utilities	D	4	Mississippi River	1,400,000	214,000	65,101	16,501,000	14,698,000	335	43,875	120
3220	Luck Municipal Water Utility	D	2	Mississippi River	1,080,000	237,000	121,140	30,197,000	15,779,000	392	40,253	110
3340	Maple Bluff Municipal Water Utility	D	NR	Mississippi River	400,000	NR	190,260	55,276,000	50,920,000	532	95,714	262
3350	Marathon Water & Sewer Utility	D	2	Mississippi River	864,000	425,000	236,063	66,780,000	22,845,000	497	45,966	126
3380	Marion Municipal Water and Sewer Utility	D	4	Lake Michigan	1,008,000	483,000	265,748	88,464,000	18,447,000	509	36,242	99
3410	Marshall Water & Sewer Utility	D	2.8	Mississippi River	1,116,000	596,000	293,937	89,287,000	50,917,000	981	51,903	142

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
3540	Melrose Municipal Water Utility	D	1	Mississippi River	300,000	115,000	37,729	11,567,000	9,928,000	199	49,889	137
3620	Merrillan Municipal Electric & Water Utility	D	3	Mississippi River	79,000**	79,000	33,386	11,977,000	10,445,000	272	38,401	105
3630	Merrimac Municipal Water Utility	D	4	Mississippi River	648,000	130,000	27,260	8,233,000	7,018,000	239	29,364	80
3675	Milladore Water Utility	D	3	Mississippi River	72,000	40,000	12,852	3,981,000	3,463,000	104	33,298	91
3680	Milltown Water Utility	D	0.5	Mississippi River	1,520,000	149,000	99,033	19,945,000	13,734,000	322	42,652	117
3760	Minong Water Utility	D	NR	Mississippi River	1,188,000	175,000	71,526	19,663,000	9,938,000	222	44,766	123
3830	Montello Water Utility	D	4	Mississippi River	828,000	298,000	141,710	41,668,000	20,411,000	521	39,177	107
3840	Montfort Municipal Water Utility	D	1	Mississippi River	360,000	196,000	57,471	16,705,000	12,381,000	283	43,749	120
3850	Monticello Water Utility	D	4	Mississippi River	300,000**	464,000	112,570	29,759,000	18,403,000	451	40,805	112
4080	New Auburn Municipal Water Utility	D	1	Mississippi River	100,000	64,000	27,762	9,994,000	6,164,000	164	37,585	103
4170	Nichols Municipal Water Utility	D	1	Lake Michigan	4,500,000	85,000	18,740	5,264,000	3,902,000	105	37,162	102

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
4325	Oakdale Water Utility	D	25	Mississippi River	720,000	124,000	25,518	8,147,000	4,044,000	93	43,484	119
4450	Orfordville Municipal Water Utility	D	10	Mississippi River	1,281,000	315,000	130,260	34,402,000	27,787,000	478	58,132	159
4460	Osceola Municipal Water Utility	D	2.8	Mississippi River	2,900,000	654,000	321,389	111,742,000	42,237,000	1,024	41,247	113
4500	Owen Municipal Water Utility	D	NR	Mississippi River	NR	241,000	141,688	37,449,000	12,017,000	375	32,045	88
4530	Pardeeville Municipal Water Utility	D	3	Mississippi River	500,000	423,000	168,690	56,685,000	45,672,000	839	54,436	149
4600	Pepin Municipal Water Utility	D	6.5	Mississippi River	31,060,800**	280,000	111,559	36,000,000	18,320,000	414	44,251	121
4640	Phillips Municipal Waterworks	D	NR	Mississippi River	200,000**	885,000	250,049	82,919,000	20,308,000	633	32,082	88
4670	Pittsville Municipal Water Utility	D	3	Mississippi River	302,000	201,000	105,219	29,628,000	10,631,000	306	34,742	95
4690	Plainfield Water Utility	D	1.5	Mississippi River	1,000,000	197,000	77,041	16,908,000	13,924,000	315	44,203	121
4810	Poynette Municipal Water Utility	D	NR	Mississippi River	NR	337,000	189,005	57,207,000	42,468,000	938	45,275	124
4920	Randolph Municipal Water Utility	D	1.5	Mississippi River	250,000**	263,000	124,616	40,788,000	25,980,000	590	44,034	121
4980	Reedsville Municipal Water Utility	D	2	Lake Michigan	576,000	248,000	84,879	24,272,000	18,430,000	424	43,467	119

			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
5090	Ridgeway Municipal Water Utility	D	7	Mississippi River	190,000	72,000	47,044	12,214,000	11,181,000	286	39,094	107
5159	Rome Water Utility	D	25	Lake Michigan	2,160,000	466,000	120,501	41,223,000	38,428,000	877	43,818	120
5296	Scott Water Utility	D	NR	Lake Michigan	NR	NR	128,778	37,080,000	32,095,000	580	55,336	152
5400	Shell Lake Waterworks	D	1.5	Mississippi River	13,000,000**	281,000	160,981	40,076,000	22,353,000	495	45,158	124
5470	Shullsburg Water Utility	D	3	Mississippi River	576,000	218,000	95,504	33,117,000	22,395,000	538	41,626	114
5480	Siren Municipal Water Utility	D	1.15	Mississippi River	870,000	259,000	102,038	33,915,000	13,238,000	342	38,708	106
5520	Soldiers Grove Municipal Water Utility	D	8	Mississippi River	12,000,000**	86,000	46,071	14,058,000	7,731,000	212	36,467	100
5550	Somerset Water Utility	D	15	Mississippi River	2,880,000	630,000	283,836	94,120,000	48,049,000	915	52,513	144
5650	Spring Valley Waterworks	D	5	Mississippi River	720,000	193,000	97,627	30,682,000	21,145,000	423	49,988	137
5715	Stockbridge Water Utility	D	NR	Lake Michigan	NR	80,000	41,773	15,093,000	12,706,000	307	41,388	113
5840	Taylor Water Utility	D	1	Mississippi River	500,000	230,000	32,578	8,731,000	5,782,000	164	35,256	97
6110	Vesper Municipal Water & Sewer Utility	D	1	Mississippi River	316,000	235,000	125,921	35,074,000	7,477,000	200	37,385	102

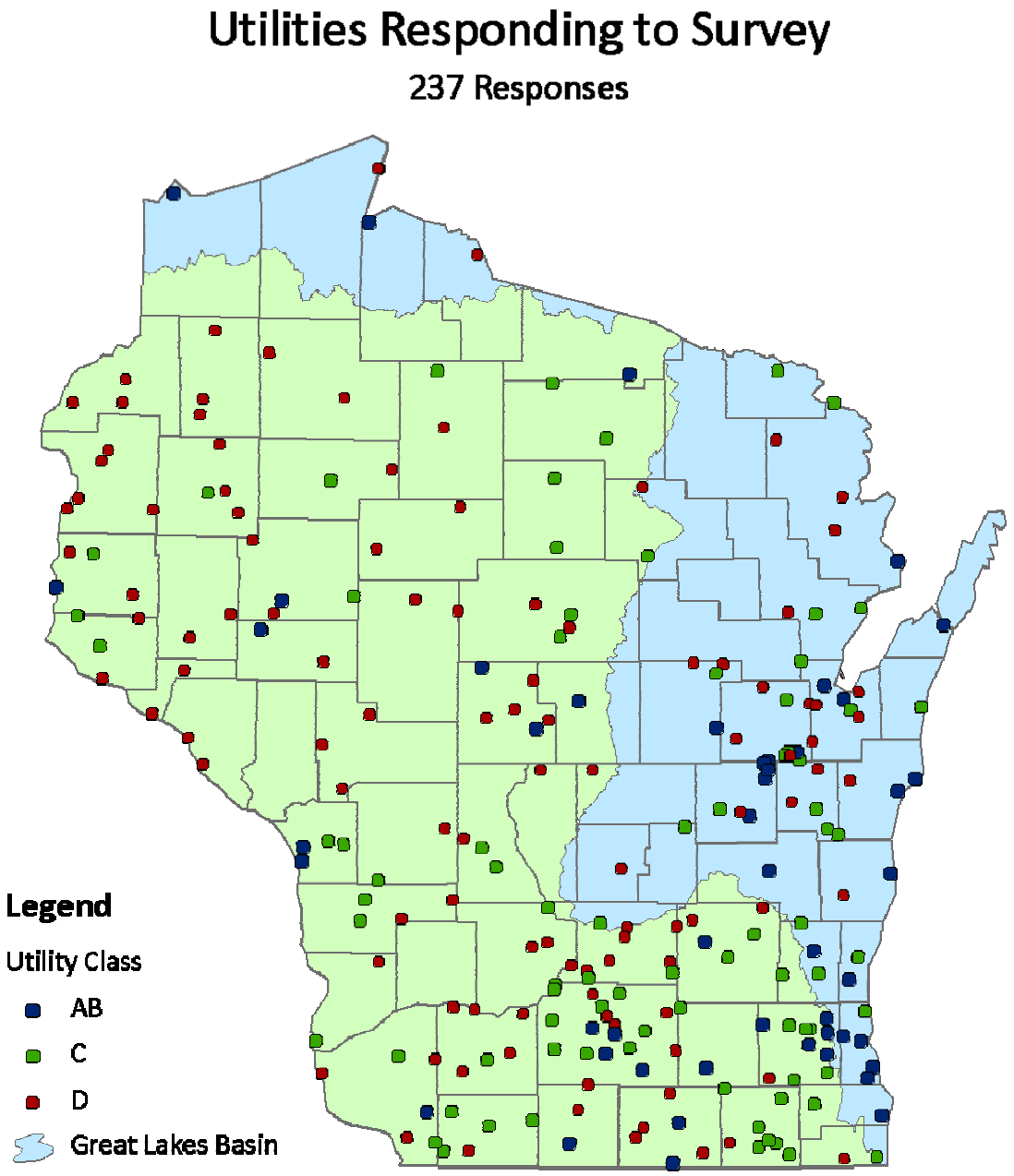
			From Survey Responses			From 2007 Annual Report Data						
PSC Utility ID	Name of Utility	Class	Service Area (Sq. Miles)	Watershed	Maximum Daily Capacity (Gallons)	Maximum Amount Pumped on Any One Day in 2007 (Gallons)	Average Daily Amount of Water Pumped (Gallons)	Total Sales (Gallons)	Residential Sales (Gallons)	Number of Residential Customers	Average Amount of Water Used Per Residential Customer in 2007 (Gallons)	Average Daily Amount of Water Used Per Residential Customer in 2007 (Gallons)
6310	Wausaukee Water & Sewer Utility*	D	1	Lake Michigan	150,000**	233,000	56,468	16,709,000	8,647,000	227	38,093	104
6350	Webster Municipal Water Utility	D	1	Mississippi River	NR	188,000	63,134	16,782,000	9,197,000	259	35,510	97
6370	West Baraboo Municipal Water & Sewer Utility	D	4	Mississippi River	NR	NR	121,759	40,696,000	24,181,000	558	43,335	119
6385	Westboro Sanitary District Water System	D	15	Mississippi River	22,000**	51,000	10,885	2,097,000	1,889,000	65	29,062	80
6445	Westport Water Utility District	D	10	Mississippi River	2,000,000	681,000	127,975	40,659,000	19,228,000	323	59,529	163
6590	Winter Water Utility	D	1	Mississippi River	100,000	92,000	43,759	7,793,000	4,143,000	149	27,805	76
6790	Woodville Water & Sewer Utility	D	1	Mississippi River	1,400,000	150,000	93,186	29,837,000	18,884,000	422	44,749	123
6800	Wrightstown Water Utility	D	NR	Lake Michigan	975,000	503,000	227,688	62,622,000	44,851,000	954	47,014	129
6818	Wyocena Municipal Water & Sewer Utility	D	3	Mississippi River	335,332	156,000	56,364	17,837,000	10,704,000	231	46,338	127

NR indicates Not Reported

* Indicates that 2006 Annual Report data was used because 2007 information was not available

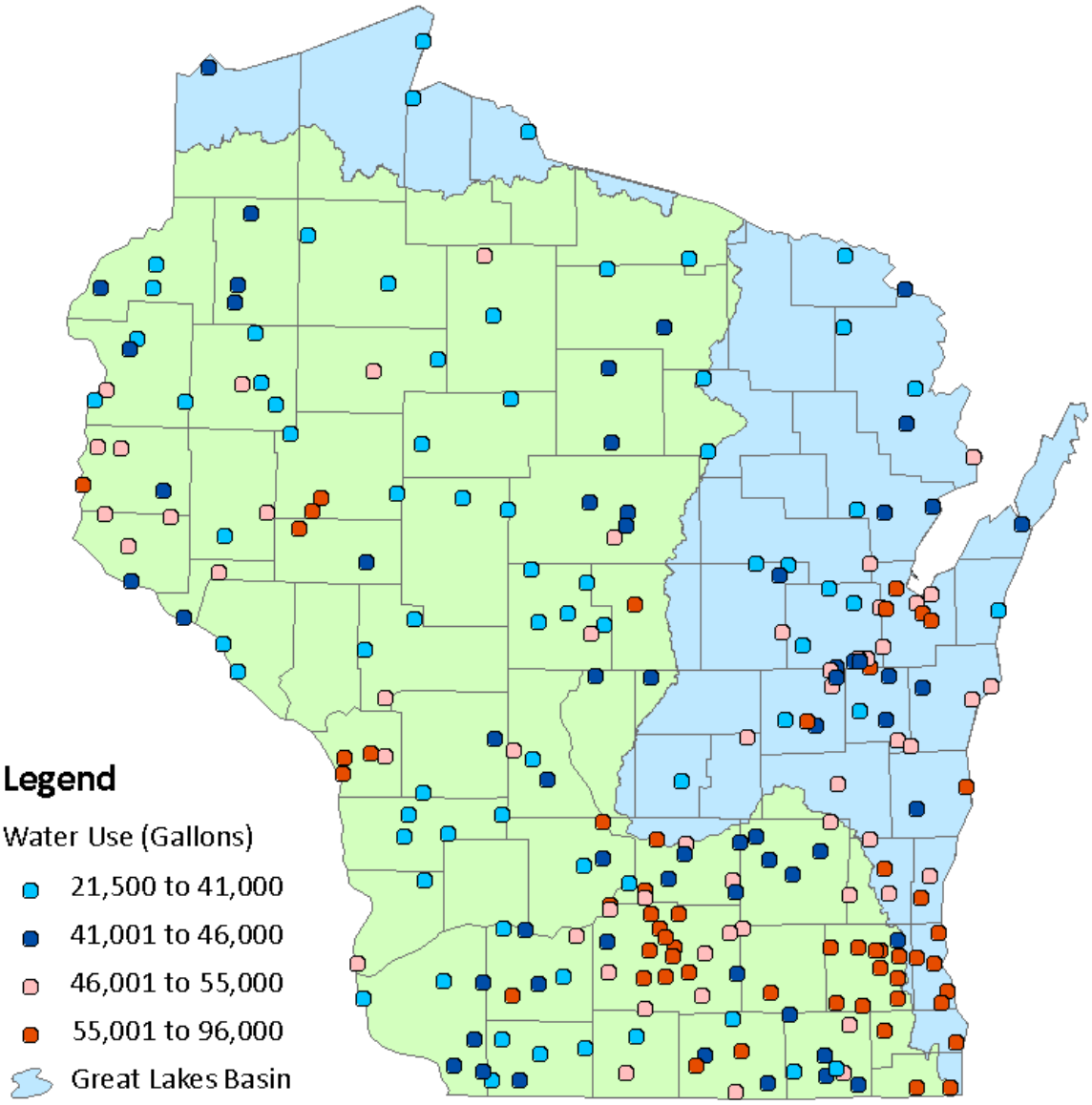
** Indicates that reported maximum daily pumpage in 2007 is inconsistent with reported utility maximum daily capacity

VII. APPENDIX 3: MAPS



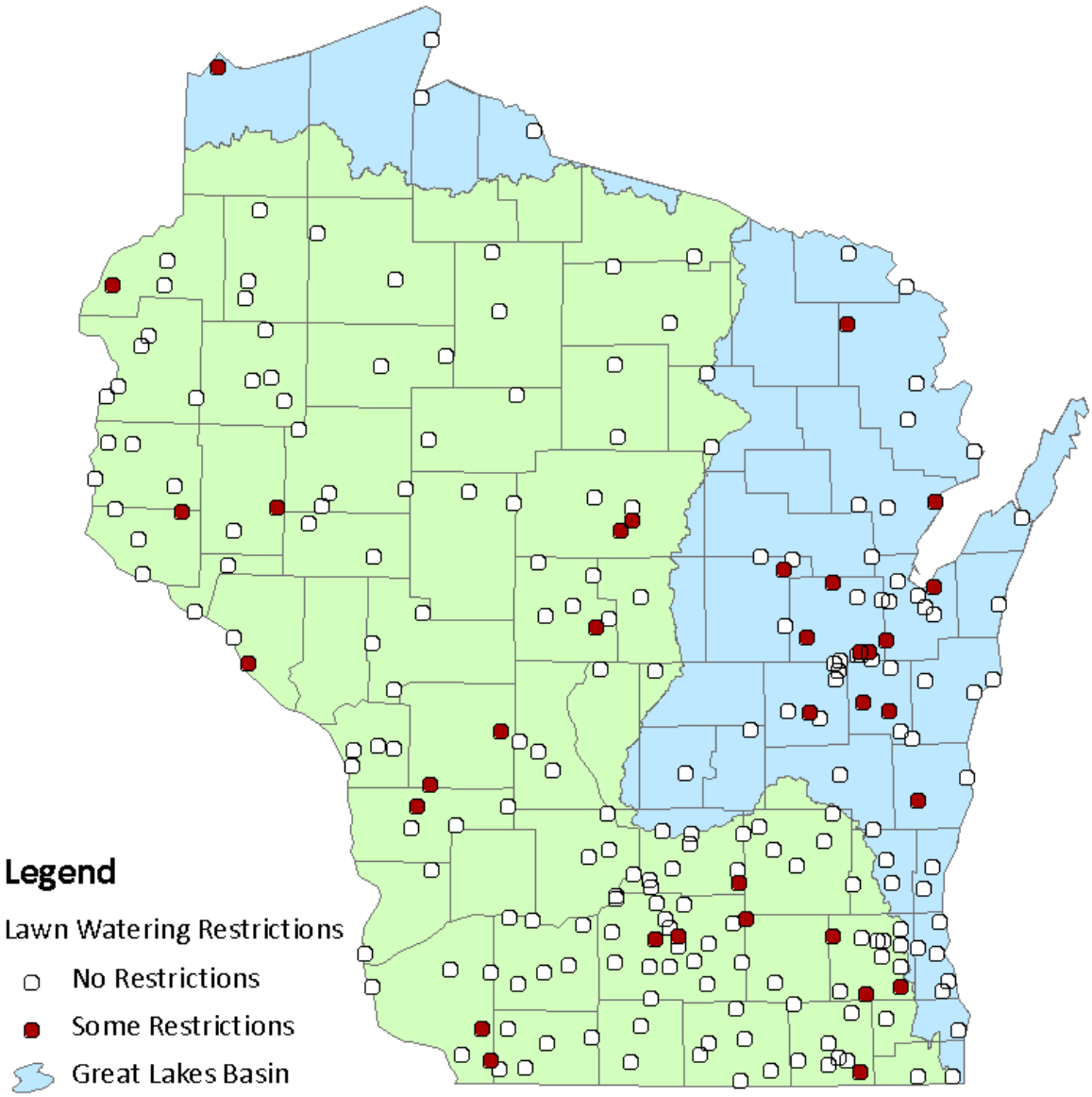
Average Annual Residential Water Use (2007)

(237 Responses)



Communities with Lawn Watering Restrictions

(218 Responses)



VIII. APPENDIX 4: SUMMARY OF RESPONSES

Question 1: Enter the name of your utility.

(see Appendix 2)

Question 2: Enter your PSC utility ID number.

(see Appendix 2)

Question 3: Enter contact information for the person completing this survey.

Question 4: Select the number of years you have been in your current position.

	Less than 1 Year	Between 1 & 4 Years	Between 5 & 10 Years	More Than 10 Years	TOTAL
Percentage of Respondents	2.5%	25.3%	25.7%	46.4%	100%
Tally of Respondents	6	60	61	110	237

Question 5: Approximately how many individuals were served by your utility in 2007?

(see Appendix 2)

Question 6: What is the estimated size of your utility's service area, in square miles?

(see Appendix 2)

Question 7: Identify the watersheds where your utility's service area is located.

	Mississippi River	Lake Michigan	Lake Superior	Both Miss. River & Great Lakes	TOTAL
Percentage of Respondents	66.2%	29.1%	1.7%	3.0%	100%
Tally of Respondents	157	69	4	7	237

Question 8: What is the maximum daily amount of water that can be supplied by your utility (in 1,000s of gallons per day)?

(see Appendix 2)

Question 9: Does your utility have a written water loss control plan?

	Yes	No	TOTAL
Percentage of Respondents	19.3%	80.7%	100%
Tally of Respondents	43	180	223

Question 10: Does your utility evaluate water loss from the following system components as part of its regular leak detection and water loss control efforts?

	Yes	No	Unknown	Not Applicable	TOTAL
Water Mains	68.8% (154)	27.2% (61)	2.7% (6)	1.3% (3)	224
Service Laterals & Connections	61.6% (138)	33.9% (76)	3.1% (7)	1.3% (3)	224
Hydrants & Valves	78.1% (175)	18.3% (41)	2.2% (5)	1.3% (3)	224
Storage Facilities	59.4% (133)	27.7% (62)	5.8% (13)	7.1% (16)	224
Treatment Facilities	41.6% (92)	22.2% (49)	3.2% (7)	33.0% (73)	221
Pumping Facilities	66.5% (149)	21.4% (48)	2.7% (6)	9.4% (21)	224

Question 11: Estimate the percentage of water mains that are surveyed for leaks annually. (Based on those who evaluated water loss from water mains in question 10).

	We do not regularly (annually) survey water mains for leaks	76 to 100 percent	51 to 75 percent	26 to 50 percent	1 to 25 percent	No Response	TOTAL
Percentage of Respondents	37.7%	18.8%	5.2%	11.0%	24.7%	2.6%	100%
Tally of Respondents	58	29	8	17	38	4	154

Question 12: Estimate the percentage of service laterals and connections that are surveyed for leaks annually. (Based on those who evaluated water loss from service laterals & connections in question 10).

	We do not regularly (annually) survey service laterals & connections for leaks	76 to 100 percent	51 to 75 percent	26 to 50 percent	1 to 25 percent	No Response	TOTAL
Percentage of Respondents	47.1%	9.4%	4.3%	10.9%	27.5%	0.7%	100%
Tally of Respondents	65	13	6	15	38	1	138

Question 13: Estimate the percentage of your utility's distribution and storage system that has been mapped using a Geographic Information System (GIS).

	We do not have a GIS	76 to 100 percent	51 to 75 percent	26 to 50 percent	1 to 25 percent	TOTAL
Percentage of Respondents	54.0%	35.4%	2.7%	1.3%	6.6%	100%
Tally of Respondents	122	80	6	3	15	226

Question 14: How frequently does your utility test its 5/8, 3/4, and 1-inch customer meters for accuracy?

	More than once every 10 years	About once every 10 years	Less than once every 10 years	Never	Not applicable: Utility replaces meters within 20 years of installation	TOTAL
Percentage of Respondents	11.2%	53.8%	14.3%	0.9%	19.7%	100%
Tally of Respondents	25	120	32	2	44	223

Question 15: How frequently does your utility test its supply (pump station) meters for accuracy?

	More than once every 2 years	About once every 2 years	Less than once every 2 years	Never	Not applicable: Our utility does not have supply meters	TOTAL
Percentage of Respondents	31.2%	43.4%	18.6%	4.5%	2.3%	100%
Tally of Respondents	69	96	41	10	5	221

Question 16: Which method does your utility use to test its supply (pump station) meters? (Does not total 100% because the utilities could choose all that applied)

	On-site by contractor or manufacturer representatives	Meters are sent off-site for testing	On-site by utility staff	Other	Not applicable: Our utility does not have supply meters	TOTAL
Percentage of Respondents	66.7%	29.7%	16.0%	6.4%	3.7%	NA
Tally of Respondents	146	65	35	14	8	219

Question 17: What is the likelihood that your utility will implement the following conservation and efficiency measures within the next 3 years?

	Very Unlikely (1)	Unlikely (2)	Neither Likely Nor Unlikely (3)	Likely (4)	Highly Likely (5)	Measure Has Already Been Implemented	Average Rating	Number of Respondents
Increase the frequency of meter testing and replacement	16.2% (36)	24.3% (54)	17.1% (38)	16.7% (37)	5.0% (11)	20.7% (46)	2.63	222
Adopt a written water loss control program	4.1% (9)	18.6% (41)	35.3% (78)	25.8% (57)	4.5% (10)	11.8% (26)	3.09	221
Manage pressure to minimize leaks in distribution system	12.7% (28)	26.8% (59)	24.5% (54)	10.0% (22)	3.6% (8)	22.3% (49)	2.57	220
Switch to monthly customer bills	20.1% (44)	23.3% (51)	9.6% (21)	6.4% (14)	1.8% (4)	38.8% (85)	2.13	219
Apply to the PSC for conservation- oriented water rates	10.5% (23)	28.2% (62)	39.5% (87)	15.0% (33)	5.0% (11)	1.8% (4)	2.77	220
Conduct water audits of residential customers	7.7% (17)	29.4% (65)	38.0% (84)	10.4% (23)	1.4% (3)	13.1% (29)	2.64	221
Conduct water audits of non- residential customers	8.3% (18)	32.1% (70)	39.4% (86)	11.0% (24)	0.9% (2)	8.3% (18)	2.61	218

	Very Unlikely (1)	Unlikely (2)	Neither Likely Nor Unlikely (3)	Likely (4)	Highly Likely (5)	Measure Has Already Been Implemented	Average Rating	Number of Respondents
Conduct water audits of customers with large landscape irrigation needs	15.5% (34)	32.9% (72)	38.4% (84)	10.0% (22)	0.5% (1)	2.7% (6)	2.46	219
Provide rebates or other financial incentives to residential customers	26.2% (58)	39.8% (88)	28.1% (62)	2.7% (6)	0.5% (1)	2.7% (6)	2.08	221
Provide rebates or other financial incentives to non-residential customers	30.8% (68)	37.1% (82)	28.5% (63)	2.7% (6)	0.0% (0)	0.9% (2)	2.04	221
Develop a public information and education program	5.9% (13)	11.3% (25)	32.6% (72)	31.2% (69)	6.8% (15)	12.2% (27)	3.25	221
Join EPA's WaterSense program	5.5% (12)	15.9% (35)	58.2% (128)	14.1% (31)	3.6% (8)	2.7% (6)	2.94	220
Create a citizen water conservation advisory group	16.8% (37)	36.8% (81)	40.0% (88)	5.0% (11)	0.5% (1)	0.9% (2)	2.35	220
Promote projects that reuse or recycle water	8.1% (18)	18.6% (41)	40.7% (90)	22.6% (50)	6.3% (14)	3.6% (8)	3.00	221
Encourage the use of rain barrels or rain gardens	7.8% (17)	13.7% (30)	38.8% (85)	21.5% (47)	7.3% (16)	11.0% (24)	3.08	219

Question 18: Which of the following does your utility use to inform customers about its water conservation and efficiency efforts? (Does not total 100% because utilities could choose all that applied)

	Water Bill Inserts	Special Mailings to Customers	Newspaper Ads/ Letters to Editor	K-12 School Programs	Water Conservation Web Pages	Local TV/ Radio Commercials	Special Events	None of the Above	TOTAL
Percentage of Respondents	50.7%	28.8%	24.7%	16.0%	14.2%	8.7%	6.4%	28.8%	NA
Tally of Respondents	111	63	54	35	31	19	14	63	219

Question 19: Provide any additional comments necessary to describe your utility's existing water conservation and efficiency efforts.

Question 20: Does your utility have a dedicated budget for water conservation and efficiency?

	Yes	No	TOTAL
Percentage of Respondents	7.7%	92.3%	100%
Tally of Respondents	17	203	220

Question 21: Approximately how much was spent by your utility on water conservation and efficiency efforts in 2007?

Question 22: Approximately how many full-time equivalent staff were dedicated to water conservation and efficiency programs at your utility in 2007?

Question 23: In addition to water rates, which of the following sources of funding were used to support your utility's water conservation and efficiency efforts in 2007? (Does not total 100% because utilities could choose all that applied)

	General purpose taxes	User fees	Grants from government agencies	Private or non- profit funds	None of the above	TOTAL
Percentage of Respondents	11.8%	33.3%	5.6%	0.0%	61.1%	NA
Tally of Respondents	2	6	1	0	11	18

Question 24: Has your community enacted ordinances to restrict outdoor water use, such as lawn watering?

	Yes	No	Unknown	TOTAL
Percentage of Respondents	15.6%	81.2%	3.2%	100%
Tally of Respondents	34	177	7	218

Question 25: Has your community enacted ordinances that require new development to meet landscaping requirements that promote efficient outdoor water use?

	Yes	No	Unknown	TOTAL
Percentage of Respondents	6.0%	84.8%	9.2%	100%
Tally of Respondents	13	184	20	217

Question 26: Are you aware of any water reuse or recycling projects in your community?

	Yes	No	TOTAL
Percentage of Respondents	16.1%	83.9%	100%
Tally of Respondents	35	183	218

Question 27: Are you aware of any public or private partnerships within your community that exist to promote water conservation and efficiency.

	Yes	No	TOTAL
Percentage of Respondents	6.5%	93.5%	100%
Tally of Respondents	14	203	217

Question 28: To help the Public Service Commission prioritize its water conservation and efficiency efforts, please rank each of the following program areas based on their order of importance to your utility.

	Least Important (1)	→			Most Important (5)	Average Rating	Number of Responses
Identifying water conservation benchmarks and best practices for utilities	10.4% (20)	18.1% (35)	22.3% (43)	21.8% (42)	27.5% (53)	3.48	191
Providing assistance to utilities in developing and implementing water conservation and efficiency plans	7.8% (15)	15.5% (30)	22.8% (44)	29.5% (57)	24.4% (47)	3.38	192
Providing information about water conservation on the PSC website or through regular intervals	23.9% (47)	24.9% (49)	16.8% (33)	21.3% (42)	13.2% (26)	2.86	196
Designing conservation-oriented water rates	26.0% (50)	21.4% (41)	23.4% (45)	15.1% (29)	14.1% (27)	2.76	191
Managing a statewide program that offers rebates or other financial incentives to utility customers to encourage water-efficient behaviors	23.3% (45)	22.8% (44)	18.7% (36)	15.0% (29)	20.2% (39)	2.70	192

Question 29: Provide any additional comments or suggestions related to the PSC's water conservation and efficiency efforts.