

2011-2012 ANNUAL REPORT



MADISON WATER UTILITY

Quality & reliability since 1882.

Table of Contents

INTRODUCTION.....	3
Purpose	3
Mission Statement.....	3
History of the Madison Water Utility	3
Water Utility Board Governance	3
Water Utility Board Members.....	5
Water Utility Senior Leadership Team	5
PROJECTS	6
Major Projects.....	6
Project H ₂ O	6
East Side Water Supply Project.....	7
Completed Projects.....	8
Prairie Road Water Tower	8
Arbor Hills Booster Pump Station 118.....	9
Water Main Projects.....	9
Current and Upcoming Projects	10
Well 15 VOC Mitigation Project.....	10
Zone 4 Water Supply Augmentation	11
Well 7 Iron and Manganese Mitigation	11
Booster Pump Station 106 Reconstruction Project	11
WATER QUALITY	12
Chromium-6	13
Lead Service Replacement Program	13
Water Main Flushing	14
Fluoride	15
Source Water Protection	15
Madison Kipp Corp. Contamination Investigation and Well 8.....	15
Monitoring Wells	16
WATER SUPPLY & OPERATIONS.....	16
Pumpage.....	16
Conservation	17
Conservation and Sustainability Plan	18
Toilet Rebate Program	18
Service Interruptions	18
Service Extensions	20
FINANCES	20
2011 Financial Highlights.....	20

Rates.....	21
Cost of Service and Debt	22
Cost of Service	22
Long-Term Debt	23
ADDITIONAL RESOURCES	24



INTRODUCTION

Purpose

Section 13.01(3) of the Madison General Ordinances establishes the duty of the Madison Water Utility Board to “issue an annual report that shall be made available to the Common Council.”

Mission Statement

We are entrusted by the people of Madison to supply high quality water for consumption and fire protection at a reasonable cost, while conserving and protecting our ground water resources for present and future generations.

History of the Madison Water Utility

Madison’s community water service began in 1880 with a petition to the City of Madison Common Council asking that a waterworks system be constructed. Madison’s population was 10,324. The Common Council directed its waterworks committee to establish the Madison Waterworks on September 5, 1881. Financing was obtained and contracts let in spring of 1882, and pumping commenced on December 7, 1882.

Early management was vested in the Common Council through its committee, and on March 2, 1884, general management was transferred to the Board of Water Commissioners. This Board of Water Commissioners arrangement continues today. The Madison Waterworks achieved department status in the early 1960s and became the Madison Water Utility (MWU) under a General Manager leadership. In common with other Wisconsin water utilities, the Public Service Commission of Wisconsin regulates the utility in matters of rates, rules and levels of service.

MWU has always been a groundwater system in spite of being surrounded by lakes. A deep, high-quality aquifer beneath the city is the source of our water supply. MWU currently has 22 active deep wells with a pumping capacity of over 65 million gallons per day, and now provides water service to over 65,000 accounts in the City of Madison and Fitchburg, Villages of Shorewood Hills, Maple Bluff, Towns of Madison, , Blooming Grove, and Burke. As the city grows and expands, MWU must continue to plan for and add wells, storage, pumping equipment, and new and replacement pipe to meet demand and ensure a sufficient supply is available to fight fires.

Water Utility Board Governance

The [Water Utility Board](#) is described by state statute and city ordinance. It is made up of seven voting members and the Director of Public Health (or his/her designee) as an ex officio member. The board is charged with authority for managing and operating MWU



under the general direction of the Common Council. The Mayor appoints and the Common Council confirms board members for terms of five years for citizen members (with staggered appointment dates) and two years for alder members. The Director of Public Health's appointment is ongoing.

The purpose of the board, on behalf of the residents of Madison, is to see to it that MWU:

- provides consumers with an adequate quantity of high quality water for consumption and fire protection at a reasonable financial and environmental cost; and
- manages groundwater resources and the water delivery system to ensure present and future generations of city residents benefit from this excellent source of water.

On August 24, 2010, the Water Utility Board adopted a [Policy Book](#), which includes policies in four major categories:

- [Outcomes](#) Policies which define the benefits MWU provides to the residents of Madison.
- [Executive Limitations](#) Policies which establish prudent financial and ethical boundaries.
- [Board–Executive Delegation](#) Policies which define relationships and boundaries between the board, the General Manager, and MWU staff.
- [Board Process](#) Policies which describe how the board carries out its own tasks.

The board generally meets on the fourth Tuesday of every month. The City of Madison's [Legislative Information Center](#) includes a list of future meeting dates and archived agendas, minutes, and links to audio or video recordings of meetings (when available).



Water Utility Board Members

OFFICERS

- *President:* Madeline Gotkowitz
Hydrogeologist, Wisconsin Geological and Natural History Survey
- *Vice President:* Bruce Mayer
Accountant, Wegner LLP
- *Secretary:* Larry Nelson, P.E.
Retired, City Engineer

ALDER BOARD MEMBERS

- Lauren Cnare, District 3
- Sue Ellingson, District 13

CITIZEN BOARD MEMBERS

- P. Michael DePue, P.E.
Civil Engineer and Certified Floodplain Manager
- *Seat currently vacant*

PUBLIC HEALTH APPOINTMENT (EX OFFICIO MEMBER)

- Doug Voegeli
Director of Environmental Health, Public Health of Madison and Dane County

Water Utility Senior Leadership Team

- Tom Heikkinen, General Manager
- Al Larson, Principal Engineer
- Joe DeMorett, Water Supply Manager
- Joseph Grande, Water Quality Manager
- Dan Rodefled, Operations Manager
- Michael Krentz, Financial Manager
- Robin Piper, Customer Service Manager

PROJECTS

Major Projects

Project H₂O



MWU is upgrading to an Advanced Metering Infrastructure (AMI), a communication system between the utility and the meter. The installation of the new city-wide system is called “[Project H₂O](#).” A radio transmitter is attached to each water meter to send water use data to MWU via a secure connection. The radio transmitter operates for less than 15 seconds a day. Currently, meters are manually read every six months using an outside read system that is no longer supported by the manufacturer.

During 2012 and the first part of 2013, every home and business in Madison will be visited for either a new meter installation or a retrofit of the existing meter. This project will provide both immediate and long-term benefits, including:

- Better consumption data to improve customer service and help with water supply planning and overall system operation.
- Monthly billing and eventual online access to consumption information to assist customers with budgeting and enable better control over their own water use.
- Improved leak detection on both the customer side and the distribution system. Some customers have already [saved hundreds of dollars](#) by being alerted to toilet leaks months earlier than was previously possible.
- Reduced operating costs and vehicle emissions by eliminating the need for a water meter reader to visit each property. This also diminishes the risk of employee injuries due to vehicle accidents and falls in snow, ice, and other adverse conditions.

Despite the many advantages of the system, some customers were concerned about safety and privacy and filed a petition with the Public Service Commission of Wisconsin (PSC). The PSC ruled that utilities are not required to offer an opt-out, but MWU met with the lead petitioner and developed an [Opt-out Policy](#). A public hearing was held and the policy was submitted to the Water Utility Board, Common Council, and PSC for approval.

The policy offers two alternatives to a standard radio transmitter installation at an additional customer cost.

East Side Water Supply Project



EAST SIDE WATER SUPPLY PROJECT

In July 2010, MWU began the [East Side Water Supply \(ESWS\) Project](#), a major water supply planning project that paired professional and scientific expertise with community engagement to recommend future infrastructure on Madison's East Side. The 18-month study developed projects to improve water quality and supply in an area ranging from the Yahara River in the west to I-90 in the east, and from Northport Drive and East Towne in the north to Buckeye Road in the south.

With the assistance of Representative Tammy Baldwin's office, MWU secured a 55% special project grant in the amount of \$291,000 from the US Environmental Protection Agency to offset the \$550,000 project cost.

A Citizen Advisory Panel (CAP) met and advised MWU on public expectations for drinking water quality, water supply and demand, water conservation, and public participation. On July 26, 2011 the Water Utility Board approved the establishment of four projects to improve water quality and supply on Madison's east side:

- [Mitigation of volatile organic compounds on site at Unit Well 15.](#)
- [Removal of iron and manganese at Unit Well 8.](#)
- [Removal of iron and manganese at Unit Well 7.](#)
- [Replace Unit Well 3, which was abandoned in 2008.](#)

Additional information about the Well 7 and Well 15 projects is also included later in this report.

Completed Projects

Prairie Road Water Tower

The elevated water reservoir on Prairie Road, which was destroyed in a fire in 2010, has been rebuilt. The new reservoir has a larger capacity and will provide improved operational flexibility and system reliability.



NEW WATER TOWER ON PRAIRIE ROAD

Arbor Hills Booster Pump Station 118

The [Arbor Hills Supplemental Fire Flow Supply Project](#) was established in 2009 to improve water system reliability and available fire fighting capacity and provide the ability to transfer water between pressure zones. MWU worked closely with a Citizen Advisory Panel and held five public meetings on this project. A new booster pumping station located in Aldo Leopold Park on the Cannonball Trail Water Main was completed in 2012.



NEW BOOSTER STATION AT LEOPOLD PARK

Water Main Projects

During 2011, MWU replaced 10 miles of main and built 4.1 miles of new main at a cost of \$10.8 million. Infrastructure replacement will remain a priority for MWU for decades to come. Over 400 miles of Madison's 850-mile piping system need to be replaced in the next 40 years to renew and maintain the system.

In the fall of 2011, MWU rehabilitated approximately 1,300 feet of deteriorated cast iron main on Droster Road using emerging trenchless structural lining methods. This pilot project was the first in the state to use this structural cured-in-place pipe (CIPP) lining

technology. CIPP lining allows for the construction of a new pipe inside of a deteriorated main, with only minor excavations for accessing the water main at the ends of each 400-500 foot segment. The CIPP liner is approved for drinking water systems, and it is designed to meet the strength and pressure requirements of a new pipe for at least a 50 year service life. In 2012, this technology was also used to rehabilitate approximately half a mile of 6-inch water main on Major Avenue.



WATER MAIN LINING PROJECT ON DROSTER ROAD

Current and Upcoming Projects

MWU invites citizens to become active in the development of Water Utility projects through participation on a [Citizen's Advisory Panel](#) (CAP). Through this participatory process, citizens provide valuable input and feedback and help produce high quality projects that meet and exceed public expectations.

Well 15 VOC Mitigation Project

[Unit Well 15](#) operates year-round and serves the East Washington corridor including Westchester Gardens, Mayfair Park, Bluff Acres, Carpenter-Ridgeway, Eken Park, and Emerson East neighborhoods. Well 15 also serves the High Crossing area located east of

Interstate 90/94. This well has shown increasing concentrations of a single volatile organic compound (VOC), namely tetrachloroethylene (PCE). These compounds do not violate any current regulations; however, the concentration of PCE is steadily increasing.

A low-profile air stripper will be installed at the well site to remove VOCs. Construction will occur from the fall of 2012 through spring of 2013. The project is scheduled to be complete in June 2013.



ARCHITECTURAL RENDERING OF WELL 15 FILTER ADDITION

Zone 4 Water Supply Augmentation

The purpose of the [Zone 4 Water Supply Augmentation Project](#) is to supplement supply in the southeast part of the city to improve fire fighting capacity and system reliability. Two potential well sites were evaluated, and a site on Tradewinds Parkway was selected. A permanent production well is expected to be completed by 2014.

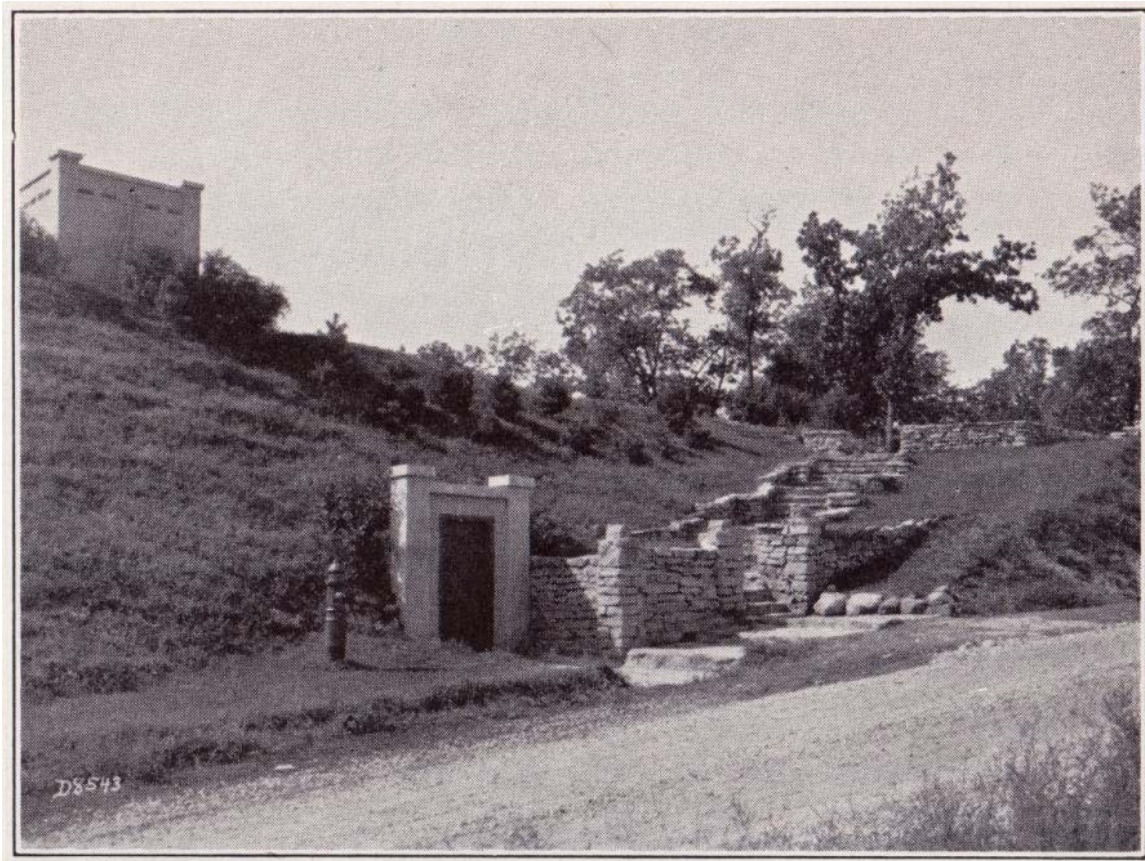
Well 7 Iron and Manganese Mitigation

Drilled in 1939, [Unit Well 7](#) operates year-round and primarily serves the Village of Maple Bluff, Sherman Avenue neighborhoods south of Almo Avenue/Sheridan Street and west of Packers Avenue, and areas of the isthmus between Livingston Street and the Yahara River. Following the East Side Water Supply Project review of water supply and water quality needs, it was recommended that iron and manganese filters be constructed at Well 7. Design of the facility reconstruction and filter addition began in the fall of 2012 and construction is expected to begin in 2013.

Booster Pump Station 106 Reconstruction Project

[Booster Pumping Station 106](#) (BPS-106) is an interzone transfer pumping station located on Madison's near west side in the sloped embankment of Reservoir Park. The primary function of BPS-106 is to transfer water from Madison's main pressure zone (PZ 6, central Madison) into the City's southwest pressure zone (PZ 7, west side, southwest side). This pumping facility has been operating since 1926 - making it Madison Water Utility's oldest operating facility.

The design of the reconstruction project will begin in fall 2012 and should be completed, reviewed, and ready to bid in March or April of 2013. The bidding/preconstruction phase will likely extend to June or July of 2013. Construction of the replacement facility is anticipated to occur from the summer of 2013 to the spring of 2014.



HISTORIC PHOTO OF BOOSTER PUMP STATION 106

WATER QUALITY

Madison drinking water meets all primary (health-based) drinking water standards. The [Annual Drinking Water Quality Report](#) for 2011 was issued May 14, 2012. The water utility website also allows customers to find out [which wells serve their address](#) and to receive detailed water quality information for each well.

The Water Utility Board places the highest expectation on MWU to provide water of excellent quality. Federal and state drinking water standards are subject to revision as new compounds of concern are identified. This dynamic is a result of technology improvements and ongoing health and environmental studies.



MWU established a Water Quality Technical Advisory Committee (WQTAC) in 2008 to provide a forum for discussion of complex and technical issues with local experts. The WQTAC meets eight times a year and includes volunteers with expertise in water chemistry, water treatment, microbiology, hydrogeology, and environmental toxicology. Topics considered by the WQTAC in 2011 and 2012 include source water protection, groundwater modeling and monitoring (viruses, Madison Kipp), distribution system water quality, and EPA rule-making and regulations.

Chromium-6

[Chromium](#) is naturally found in rock, soil, plants, and animals. Industrial processes may also introduce chromium into the environment. In water, chromium occurs in two primary forms: chromium-3 (an essential nutrient found in many vegetables, fruits, grain, and meat) and chromium-6 (or hexavalent chromium, a suspected carcinogen). Current drinking water regulations limit the amount of total chromium allowed in tap water to 100 ppb (parts per billion). Total chromium is the sum of all forms of chromium in a sample.

MWU annually tests all wells for total chromium. Results are typically below 3 ppb and have remained unchanged in over 30 years of testing. In 2011, the utility began voluntarily monitoring for chromium-6. The testing showed that chromium in Madison tap water primarily exists as chromium-6. Results ranged from non-detect (<0.02 ppb) to 2 ppb; nine of the twenty-two wells had trace amounts (<0.1 ppb) of chromium-6. Additional information and complete test results are available on the MWU website.

MWU is one of five utilities participating in a Water Research Foundation tailored collaboration project “Sources, Fate, and Treatment of Hexavalent Chromium.” This project will refine the utility’s monitoring plan, improve understanding of chromium-6 occurrence and fate, and provide analysis of treatment alternatives and operational changes that could reduce chromium-6 concentrations in drinking water.

Lead Service Replacement Program

Madison’s drinking water source does not contain significant amounts of [lead](#). The corrosive nature of water, however, can dissolve or corrode lead through its contact with water service lines, interior pipes, and plumbing fixtures. Lead in drinking water can cause a variety of adverse health effects, especially for infants and children.

MWU has completed a successful 11-year program to ensure all lead water service lines in the city are replaced. Except for a small number of owner-side lead services, all known lead service lines in the City of Madison have been removed from service. Following the conclusion of the lead service line replacement program, required monitoring conducted in 2011 demonstrated lower lead levels at the customer tap.



The lead service replacement program's success has served as a national model for other utilities seeking alternatives to chemical treatment to meet federal standards for lead in drinking water. In June 2012, Water Quality Manager Joseph Grande gave a presentation on the lead service replacement program at the American Water Works Association Annual Conference and Exposition in Dallas, Texas.

Water Main Flushing

To improve water quality and minimize discoloration, water mains are [comprehensively flushed](#) by a technique known as unidirectional flushing. The procedure is performed in warm-weather months and involves the systematic opening and closing of distribution system valves and hydrants, one section of main at a time, to force the water through the pipes at high velocity, removing accumulated mineral sediment until the water is clear.

In 2011, 476 miles of water main were flushed unidirectionally and 281 miles of main were flushed conventionally. The 2012 Water Main Flushing Program began in April. Due to dry weather conditions and the resulting increase in water demand, all routine flushing was suspended from June 26 to August 13, 2012.



WATER MAIN FLUSHING IN PROGRESS

Flushing operations may lead to temporary low pressure and discolored water, which can be drawn into nearby homes and businesses if the water is being used during or



immediately following the flushing. Such events should affect customers for a few hours at most. The discoloration is caused by iron (red color) or manganese (black color) particles being dislodged from the water main. If discoloration occurs, customers should open the cold tap nearest the water meter—usually a basement sink—to full flow until the water runs clear. In some situations this may take 5 to 10 minutes. If discoloration continues, customers should contact Water Quality at (608) 266-4654.

Fluoride

Fluoride is added to Madison tap water to improve dental health and reduce tooth decay. In early 2011, the US Department of Health and Human Services recommended that the optimal fluoride level should be 0.7 mg/L to reduce the potential for severe dental fluorosis in children. MWU adjusted the chemical feed pumps to meet the new recommendation shortly after it was announced. Previously, Madison's target was 1.1 mg/L fluoride.

Source Water Protection

Protecting our groundwater resources requires the combined efforts of many entities including MWU, regulatory agencies, and individual customers and businesses. Potential sources of groundwater contamination include:

- Hazardous chemical spills and leaks.
- Improper use and disposal of chemicals, including fertilizers and pesticides.
- Unused or improperly abandoned private wells.

MWU's [Wellhead Protection Program](#) identifies land areas that contribute groundwater to our drinking water wells as well as potential contamination sources. City of Madison ordinances allow the restriction of future land uses within these zones in order to reduce the risk of water supply contamination.

Madison Kipp Corp. Contamination Investigation and Well 8

Madison-Kipp Corporation (MKC) has operated in the city since 1902 as a producer of precision parts for automobiles and other vehicles. Until 1989, chlorinated degreasing solvents were used at their property at 201 Waubesa St., resulting in contamination of soil and groundwater. Monitoring at the MKC facility shows the presence of a plume of tetrachloroethylene (PCE)-contaminated groundwater. The Wisconsin Department of Natural Resources (WDNR) is overseeing the investigation and cleanup effort. More information is available on the [WDNR website](#).

[Unit Well 8](#) is located less than 2,000 feet to the southeast of the MKC property. Neither PCE nor its immediate breakdown product trichloroethylene (TCE) has been detected at Well 8. However, MWU is concerned about the potential movement of groundwater



contaminants toward the well and plans to install a monitoring well between MKC and Well 8. MWU has also deferred the planned installation of an iron and manganese filter at Well 8 until more is known about the extent of the groundwater contamination.

Monitoring Wells

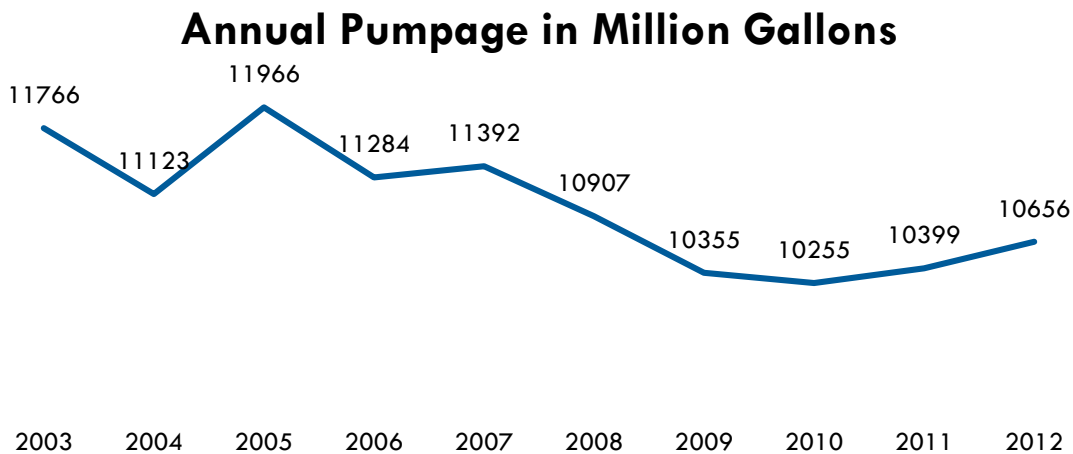
UNIVERSITY CROSSING: A set of three shallow [monitoring wells](#) were installed in early 2012 at University Crossing to observe groundwater quality during site re-development near [Unit Well 14](#). The wells will be sampled and analyzed on a quarterly basis for a period of two years. To date, volatile organic compounds have not been detected in any of the wells. Elevated levels of chloride, sodium, and nitrates have been observed in all three wells but they do not appear to be increasing as the development progresses.

SENTINEL WELL 29: Sentinel Well 29 is a monitoring well installed in 2009 to observe groundwater quality between the Sycamore landfill and [Unit Well 29](#). This well is tested semi-annually for both inorganic and volatile organic compounds. There have been some minor detects of benzene, trichlorofluoromethane, and toluene at the sentinel well, but most can be attributed to the coating on the well liner. Results indicate that contaminant migration from the Sycamore landfill is not a significant threat to water quality at Well 29 at this time.

WATER SUPPLY & OPERATIONS

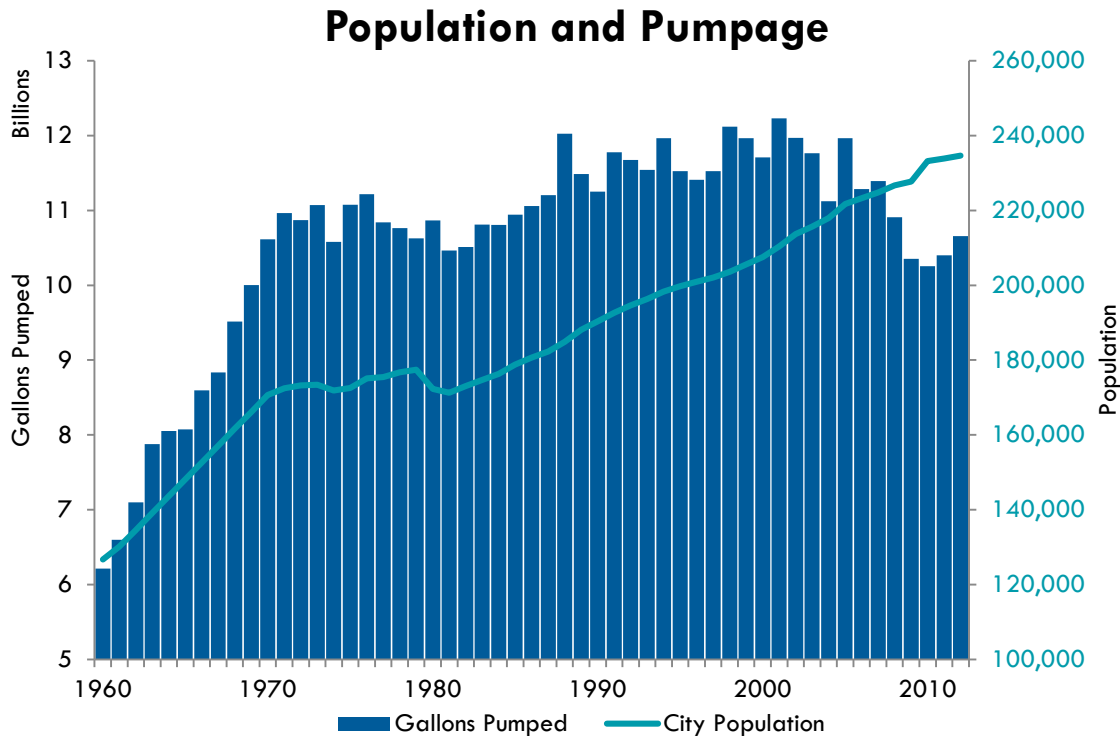
Pumpage

MWU pumped 10,398,748,000 gallons in 2011. Average daily pumpage was 28.3 million gallons, and the maximum day was 43 million gallons. In 2012, MWU pumped 10,656,235,000 gallons, a 2.5% increase over 2011. Average daily pumpage was 29.1 million gallons and the maximum day was 49 million gallons.





Dry conditions during the summer of 2012 caused a significant increase in water demand. MWU was able to meet the increase in demand by using all of its seasonal wells and encouraging customer best practices to limit outdoor watering and use water wisely. In addition, there were no mechanical or equipment failures during the drought.



As is illustrated in the graph above, pumpage has generally been declining over the last ten years even as the City of Madison’s population has grown. This is consistent with a national trend of net declines in water use per household. Though a variety of factors contribute to declining use including wetter weather, changes in household sizes and types, conservation efforts, and price increases, the primary cause appears to be the proliferation of low-flow toilets, fixtures, and appliances in homes over the past 20 years.

Conservation

It may seem counterintuitive for a utility that sells water to plan for conservation, but a sustainable rate of pumpage must be maintained to ensure clean and abundant water supplies for future customers. The Water Utility Board works closely with the General Manager on several fronts to ensure MWU’s financial viability and that complementary efforts meet conservation goals. One example is the effort to gain Public Service Commission of Wisconsin approval of a conservation-oriented rate structure. Project H₂O and MWU’s transition to monthly billing will make this possible in the near future.



Additional benefits of water conservation include improved water quality, a reduced burden on surface water quality as less wastewater is generated, and reduced greenhouse gas emissions as less energy is spent pumping water.

Conservation and Sustainability Plan

In 2008, MWU developed the [Water Utility Water Conservation and Sustainability Plan](#) which established conservation goals and suggested actions that could be taken by MWU, the city, and its residents and businesses to reduce our impact on water resources. MWU's conservation goal is to maintain groundwater pumping at a sustainable level while reducing residential per capita water use by 20% before the year 2020.

Residential consumption in gallons per capita per day:

2002-2007	73.0
2008	69.8
2009	67.8
2010	65.0
2011	65.2
Goal: 2020	58.0

Toilet Rebate Program

Toilets account for nearly 30 percent of residential indoor water consumption, and older toilets are a major source of wasted water due to leaks and inefficiency. In 2009, MWU established a [toilet rebate program](#) which offers rebates of up to \$100 to residential customers who replace existing toilets with EPA WaterSense-rated models. The program was expanded in 2010 to include apartment buildings. Over 8,200 toilets have been replaced through this program, resulting in water savings of approximately 189 million gallons citywide since 2009.

Service Interruptions

There were 247 service interruptions due to main leaks in 2011. Main breaks are due to an aging piping system and are difficult to control and impossible to predict. Over the past seven years, MWU has experienced an average of over 240 main breaks per year. This calculates to an average of 29 breaks per year per 100 miles of distribution system pipe.



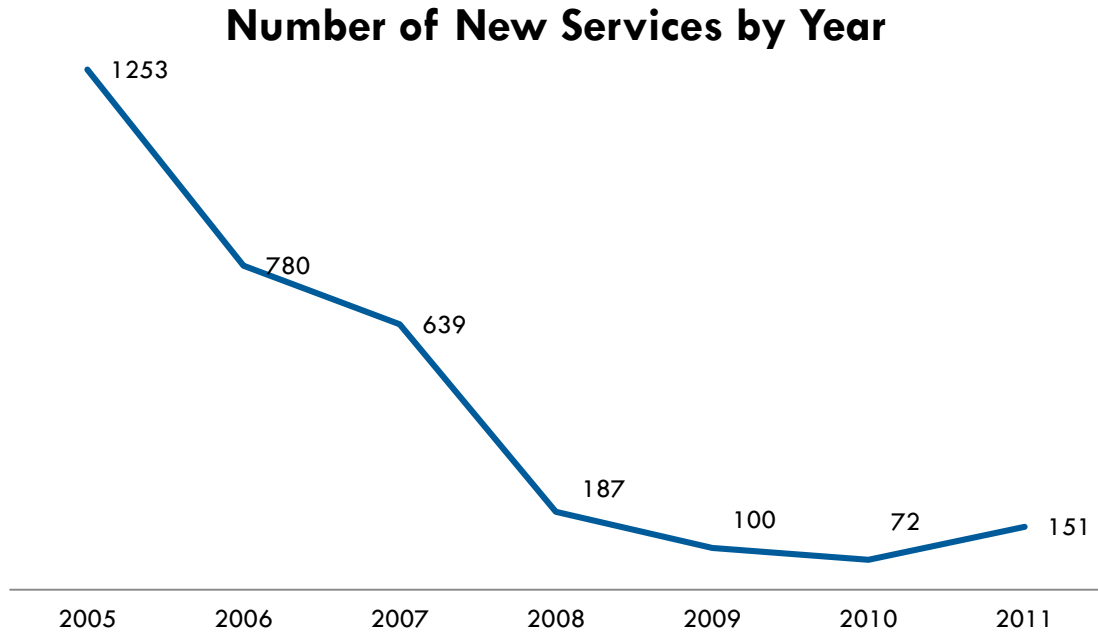
MWU CREW MEMBERS REPAIRING A WATER MAIN BREAK ON SCHOOL ROAD

Each year, over \$7 million is invested in pipe replacement. The budget is increased 4-6 percent per year as the replacement program continually grows. Pipe segments are selected for replacement based on their break history, hydraulic capacity, age, and material. As pipe is replaced, the risk of main breaks is reduced.



Service Extensions

151 new services were installed in 2011.



FINANCES

2011 Financial Highlights

During 2011, MWU increased its total net assets, or equity, by \$2,750,000 compared to an increase of \$2,976,000 in 2010. Cash and investments increased by \$11,986,000 due to an increase in construction funds from the 2011 bond issue combined with a deferred tax equivalent payment to the City of Madison. Sales of water increased \$1,403,000 in 2011, due to a nine percent increase in water rates in May 2011.

The bond refunding in 2009 combined with ongoing proactive rate adjustments allowed MWU to exceed its minimum debt coverage requirement for the last two years. The accounts required by the revenue bond resolutions are all fully funded and MWU continues to pay down its loan from the City of Madison which, once paid off, will allow the utility to begin to build an unrestricted reserve account.

In order for these positive trends to continue, MWU must continue to proactively seek rate adjustments given the infrastructure replacement and improvement plans for the next several years.



Other highlights:

- **Operating revenues increased** \$1,417,000 or 5.31% from 2010. The higher revenues were due to a 9% rate increase effective May 3, 2011, that was prorated in beginning with the August 1, 2011 customer billing. As the number of customers increased 0.28%, water pumped increased 1.47%.
- **Operating income increased** \$427,770 or 5.17% from the prior year. The increase was due to the increase in operating revenue and a lower percentage increase (4.7%) in operation, maintenance and taxes expense, offset by a higher percentage increase (7.65%) in depreciation charges.
- **Gain from property disposal decreased** \$581,304 in 2011 - as MWU recognized \$48,080 gain on the disposal of vacant land - compared to 2010, when the utility recognized gains totaling \$629,384.
- **Payment in lieu of taxes (PILOT)** by MWU to the City of Madison **increased** \$405,884 or 9.86% to \$4,519,771 in 2011, from \$4,113,887 in 2010.
- **Unrestricted cash and investments increased** to \$4,421,853 in 2011, from \$174,248 in 2010. MWU made its 2011 PILOT payment to the City of Madison in 2012. The 2010 PILOT payment was made in 2010.

Rates

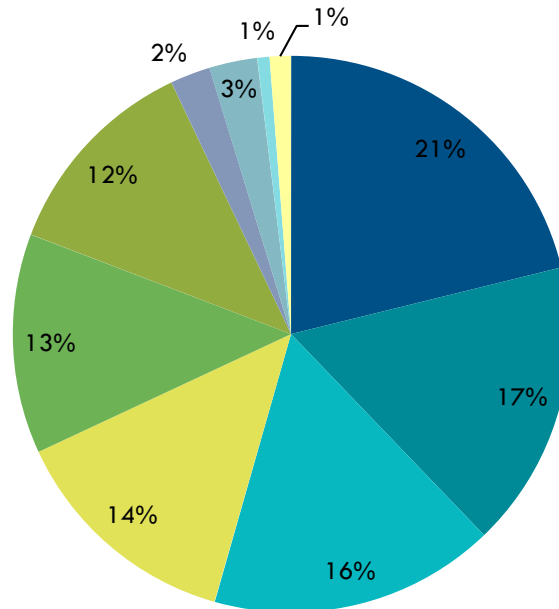
MWU was granted a 9% rate increase effective May 3, 2011. The rate increase was prorated in beginning with the August 1, 2011 customer billing, and the full rate increase was included on the January 1, 2012 bills. MWU is now ranked twenty-ninth for nonresidential rates and forty-seventh for residential rates out of 80 utilities classified as AB (over 4,000 customers) in Wisconsin, and has the thirteenth lowest nonresidential rates in Dane County. The average 6 month residential bill (water used, 44 ccf) is \$128.40, which is \$21.40 per month. This does not include sewer, stormwater, and other charges on the Municipal Services bill.



Cost of Service and Debt

Cost of Service

Where Your Water Dollar Goes



- Transmission and Distribution (Water Mains)
- Depreciation of Physical Plant
- Payment in Lieu of Taxes to City of Madison
- Administrative and General
- Pumping
- Interest and Amortization Expense, Net
- Customer Service and Metering
- Water Treatment
- Source of Supply (Wells)
- Other

Operations and maintenance expenses totaled \$14,525,000 in 2011, or \$220.27 per customer account. This is a 3.06% increase over 2010 due to increased expenses for water pumping (higher electricity costs), research on drinking water quality, employee pension and health insurance benefits, and workers compensation insurance claims.

Interest and amortization expense was \$3,853,000 in 2011, compared to \$3,540,000 in 2010, an increase of 8.84% due to increased borrowing.

A [cost of service study \(COSS\)](#) was conducted by Public Service Commission of Wisconsin staff in early 2011. The purpose of a COSS is to reasonably determine the cost of providing services to classes of customers that have similar characteristics (residential, commercial, industrial, etc.) so that rate designs are fair and nondiscriminatory.



Long-Term Debt

Date	Purpose	Final Maturity	Interest Rates	Original Amount	12/31/11 Amount Outstanding
REVENUE BONDS					
12/01/07	Refunding debt and system improvements	1/01/28	4.00-4.75%	\$27,185,000	\$23,965,000
12/09/09	Refunding debt and system improvements	1/01/30	2.00-5.00%	\$48,540,000	\$47,025,000
11/10/10	System improvements	1/01/31	0.90-5.25%	\$13,250,000	\$13,250,000
12/22/11	System improvements	1/01/32	2.00-4.00%	\$19,370,000	\$19,370,000
Totals				\$108,345,000	\$103,610,000
ADVANCE FROM MUNICIPALITY					
10/19/10	Payoff unfunded pension liability	10/01/24	3.41%	\$1,404,052	\$1,348,946
1/01/08	Advance from City, Burke Utility District #1	n/a	1.20%	\$393,762	\$423,802
LOAN FROM MUNICIPALITY					
2005	Advance from City of Madison	n/a	1.20%	\$4,573,000	\$6,120,000

On August 4, 2005, the Common Council approved a loan from the City of Madison to MWU to be used as financing with interest charged monthly at 0.25% higher than the monthly rate earned through the city’s investment pool. No formal schedule for repayment has been established, but MWU is making payments of \$765,000 a year plus interest.



ADDITIONAL RESOURCES

- [Project News](#)
- [2011 Drinking Water Quality Annual Report](#) (also known as the Consumer Confidence Report or CCR)
- [2011 Report on Water Quality Monitoring](#)
- [2011 Pumpage by Unit Well](#)
- [2011 Annual Report to the Public Service Commission of Wisconsin](#)
- [2011 Financial Statements](#)
- [Cost of Service Study \(Exhibit 3.02, Docket 3280-WR-112, PSC REF#:145871\)](#)