





Monroe County Water Authority received the J.D. Power Award for ranking the highest in customer satisfaction with midsize water utilities in the northeast for three out of the past four years.

To Our Customers

Winning awards for customer satisfaction, as MCWA has done on a consistent basis in recent years, relies to a great extent on a challenging concept—being able to focus on the present and the future at the same time.

Our concern with the present means swiftly and efficiently attending to short-term, often unforeseen situations such as water main breaks or major leaks. In these events, our crews are literally first responders. In some instances, anything less than a prompt response could have severe consequences for customers, their properties and businesses.

Perhaps more important, however, is our commitment to the future maintenance of our vast water system, in which most of our assets are buried or unseen. It takes a massive infrastructure to produce and deliver an average of 60 million gallons of water each day, with the capacity to store more than 130 million gallons. This includes nearly 3,400 miles of water mains, 36,500 valves, 27,000 fire hydrants, 50 water tanks, 45 remote pump stations, four production facilities and two reservoirs.

Guiding these fundamental infrastructure improvements is our 100-year plan, which the Water Authority, in conjunction with our consulting engineer, established in 2014. We remain steadfast in our commitment to reinvest approximately 20 percent of our annual revenue to support the plan, a disciplined approach that also smooths out rate increases for our customers.

The pandemic impacted operations in 2021 through the implementation of new technology, varied work locations and new health and safety protocols, yet our workforce remained stable throughout the year. Being designated by New York State as essential infrastructure, our employees responded to the challenge as they handled current needs and addressed plans for the future. Their skills and dedication are the driving force behind continuous improvement. which we believe is the key to customer satisfaction.

Nicholas A. Noce Nicholas A. Noce

Executive Director

Scott D. Nasca Scott D. Nasca Chairperson

Board of Directors



Scott D. Nasca Chairperson



Matthew J. Fero Vice Chairperson



Joseph R. Rulison Treasurer





Robert W. Hurlbut



Marcia Van Vechten





Management Team

Assistant to the Executive Director

Director of Production & Transmission

Director of Finance & Business Services

Nicholas A. Noce

Executive Director

Larry M. Magguilli

Amy A. Molinari

Diane L. Hendrickson Personnel Director

Christopher J. LaManna, P.E.



Building an Energetic Future

Three of the last four years, the Monroe County Water Authority received the prestigious J. D. Power Award for ranking highest in customer satisfaction among midsize water utilities in the northeast.

Even with this enviable achievement, MCWA has no plans to remain satisfied with the status quo. Dedication to continuous improvement has been a key factor in attaining such recognition these last few years, and-if anythingthat commitment became even stronger in 2021.

MCWA is driving improvement across the board, addressing every operation from answering the telephone to upgrading water meters to efforts to embrace solar energy.

Going Solar

In June 2021, MCWA announced plans to further its long-term goal of reducing energy expenses by installing a five-

megawatt solar energy array on its 140-acre parcel of land in the Town of Penfield. Despite disruptions caused by the COVID-19 pandemic, construction on the project is anticipated to be completed in 2022.

The array will benefit MCWA customers by using clean, sustainable energy to offset its power bills and also help New York State achieve its clean energy targets of generating 70 percent of the state's electricity through renewable resources by 2030.

"We first started looking at solar panels to reduce energy costs in 2018," said Chris King, Senior Production Engineer. "We were approached by Sol Systems, a company specializing in **Five Megawatts Strong. Entirely Sustainable.** MCWA is building a solar power array in Penfield to offset power used to produce and distribute water throughout its system





Follow The Sun. Each of the solar panels in MCWA's new solar array will track the sun to make the most of its power.

solar installations. Their proposal was to engineer and build a solar array and place it on our property. They would maintain it and we would receive a share of the energy credits that it generated. Basically, we just had to allow them to access 29 acres of our unused land."

Following standard guidelines, MCWA went through a competitive bidding process led by the New York Power Authority (NYPA), which is experienced with solar projects. NYPA put out a request for proposal (RFP) to several qualified solar companies.

In the end, Sol Systems received the contract and installed sun-tracking

panels with bifacial solar modules that allow light to enter from either side to increase the generation of energy.

"The kilowatt hours of energy produced by the panels will be delivered to Rochester Gas & Electric and credited to MCWA on our energy bills," said King, "and we share a percentage of the credits with Sol Systems."

The array is expected to generate 8 million kilowatt hours of electricity per year, which represents more than 15 percent of MCWA's energy needs for water pumping and treatment. Over the course of the 25-year contract, MCWA should realize substantial savings in energy costs.

The property where the array has been built was purchased by MCWA in 1993 as a possible future site for a reservoir. Plenty of unused land within the property still exists to create a reservoir. if needed.

AMR Advantages

Although the pandemic slowed the pace a bit, installation of Automated Meter Reading (AMR) meters continued in 2021. By the year end, the homes or businesses of nearly 140,000 customers—74% of the total—were equipped with AMR meters.

"We have always had a meter replacement program in place to ensure that both MCWA and our customers are receiving the most accurate registration possible," said Gregg Ippolito, Manager of Meter and Backflow services. "Thanks to AMR technology we are provided with many additional benefits when a new meter is installed."

AMR meters reduce overall operational costs associated with meter reading and also minimize the need to access customers' property. Accurate and real time readings reduce reading errors and estimated reads.

MCWA uses a mobile drive-by system to collect readings from the AMR meters that have been installed. "We utilize one employee to complete our AMR reading routes. The meter reader is able to effectively capture thousands of reads each day, keeping us on pace with our quarterly billing cycle," said Ippolito.

It used to take multiple meter readers an entire week to complete the readings of all of MCWA's monthly customers. Since updating these accounts with AMR Meters, one meter reader is able to read these 1,100 plus accounts in less than four days.

Once a route is completed, the information is uploaded to the database for bill processing. MCWA can then

review the collected data and identify potential issues such as high or low usage, including leak detection. If a leak is suspected, MCWA may proactively alert the customer and generate a visit to the property to further investigate the

"We began installing AMR meters in 2006 and have seen some good improvements in the technology," said Ippolito. "The current model we are



The J.D. Power Award is the nation's benchmark and service providers. The award is based on the J.D. Power 2021 U.S. Water Utility Residential Study, which measured satisfaction among 90 water utilities that

deliver water to at least

400,000 customers.

Satisfaction. Delivered.

using has an analog reading display and mechanical sweep for visual leak detection which makes it extremely user friendly for those customers that like to monitor their use."

MCWA is on course to complete the transition to AMR meters within the next four years.

Keeping in Touch

During normal business hours in 2021, the average time it took a live, MCWA customer service representative to answer an incoming phone call was 12 seconds. No recorded voice. No menu to wade through. No selections to make by pushing a button. In 12 seconds, a person was on the line and able to answer the majority of customer questions.

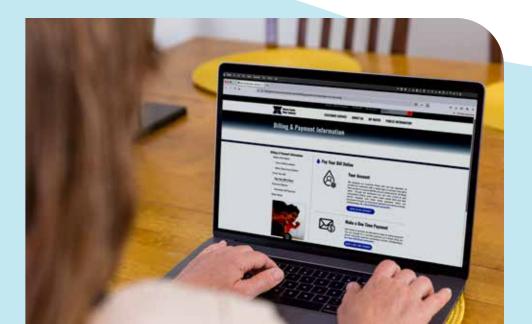
Given that many people today prefer to handle inquiries and other transactions online, the MCWA website was upgraded to include more user-friendly features, most of which are available 24/7/365.

Anyone accessing the site during business hours finds an icon on the lower left of the screen reading: "A human MCWA agent is ready to assist you!"

"Our online chat option is quickly becoming popular," said Larry Magguilli, Assistant to the Executive Director. "The same is true for a new portal that allows customers to create a personal account through which they may check their water usage and even compare it to their historical usage or to average usage."

"They may also select paperless billing, and they may pay bills online through a variety of options, such as credit cards, PayPal or Venmo," Magguilli said. "And, if someone bought or sold a property, notification can now be made online rather than by mail."

Since the customer portal has become available, some 60,000 customers have created a personal account.



customers have created an online personal account on the MCWA portal

Building on a Legacy

Underscoring "continuous" in MCWA's quest for continuous improvement is a 100-year plan that addresses how to schedule infrastructure maintenance, upgrades and/or replacements for elements of the entire water distribution system.



The Better Half

A crane slowly lowers the top half of a new water tower tank into place in the Genesee County town of Pavilion, part of MCWA's commitment to invest in water infrastructure improvements.

Opposite:
The finished product.

"Our 100-year plan was created in 2014 and updated in 2018," said Steve Savage, Director of Engineering. "The century figure is derived from the life expectancy of our facilities with the longest service lives, such as water mains. We then look at all of our facilities, assess their life expectancy, and integrate them into the overall plan. Rehabilitation and replacement projects are based on rolling, five-year budget cycles."

"For example," Savage said, " a storage tank expected to last 80 years likely

would be scheduled for repainting and rehabilitation three or four times before it is replaced at the end of its life-cycle."

Throughout the process, he said, MCWA always looks to work in partnership with towns and villages and, where appropriate, New York State DOT, to share costs and drive efficiencies.

In dealing with municipalities, Savage said, "we are consistent across the board, with all communities treated equally. We have standard contracts, and all municipalities pay standard rates."

The 2018 updating and revision of the original plan was done after comparing it with "state of the industry for infrastructure" assessments done by the American Society of Civil Engineers and other sources.

"We wanted to stay ahead of the curve," Savage said, "to the point that we could stay proactive in our thinking, create a budget for the plan, and incorporate it into our rates. Our Board has bought into the philosophy of this approach."

The plan addresses the entire infrastructure, from water mains and plants to pump stations, hydrants, valves and meters.

Like so many other entities, MCWA was hampered in 2021 by supply chain issues attributed to COVID-19. However, scheduled work was able to move forward in most areas.

Looking Forward

While MCWA's record for customer satisfaction is reflected in its recent trio of J.D. Power Awards, there is no hint of resting on these laurels.

Whether it's a 12-second telephone response time or a 100-year plan for infrastructure, the focus remains on continuing to improve in every aspect of its operations.



MONROE COUNTY WATER AUTHORITY



Operating Statistics (2012-2021 unaudited)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Water Output (Million Gallons)				11/6						
Lake Ontario Production	17,991	17,090	17,811	18,063	18,483	16,552	17,761	16,400	17,622	18,146
Miscellaneous Purchases & Production	161	17,090	165	144	156	155	162	155	143	173
Miscellaneous Fulchases & Floudction	101	131	103	144	130	133	102	133	143	1/3
Active Customers										
Retail	173,554	180,238	181,677	182,394	183,651	184,718	185,751	186,311	187,498	188,375
Wholesale	20,588	21,928	17,603	18,125	18,608	18,570	24,449	24,775	28,905	30,042
Total	194,142	202,166	199,280	200,519	202,259	203,290	210,200	211,086	216,403	218,417
Water Sales (Million Gallons)										
Residential & Commercial	13,453	12,871	12,733	12,686	13,729	12,466	13,031	12,509	13,506	12,850
Large Commercial & Industrial	2,531	2,535	2,495	2,382	2,588	2,505	2,532	2,465	2141	2,236
Wholesale	1,849	1,389	1,338	1,375	1,512	1,461	1,515	1,518	1,551	1,813
Total	17,833	16,795	16,566	16,443	17,829	16,432	17,078	16,492	17,198	16,899
Water Purchases (Net Exchange)	3,517	3,279	2,718	2,361	2,983	3,537	3,211	3,242	3,045	2,705
Revenues (000s omitted)										
Residential & Commercial	\$44,375	\$45,018	\$47,300	\$48,987	\$53,741	\$52,189	\$55,737	\$56,587	\$63,284	\$63,986
Large Commercial & Industrial	5,184	5,242	5,439	5,308	5,901	5,865	6,520	6,644	6,222	6,855
Wholesale	3,554	2,661	2,646	2,829	3,205	3,245	3,673	3,848	4,024	4,728
Total Metered	53,113	52,921	55,385	57,124	62,847	61,299	65,929	67,079	73,530	75,569
Fire Service	793	982	1,225	1,250	1,275	1,299	1,312	1,333	1,361	1,357
Interest Earnings	192	147	115	98	145	193	1,005	1,571	722	74
Federal Int. Subsidy Series 2010B Taxable Build America	Bonds 2,003	1,855	1,859	1,852	1,865	1,876	1,860	1,833	1,798	1,906
Other	3,426	3,389	3,391	3,608	3,608	2,773	2,780	2,743	2,935	3,976
Total	\$59,527	\$59,294	\$61,975	\$63,932	\$69,740	\$67,440	\$72,886	\$74,560	\$80,346	\$82,882
Operating Expense (000s omitted)										
Production/Transmission	\$13,685	\$14,713	\$12,904	\$12,282	\$13,102	\$12,673	\$14,479	\$13,275	\$14,161	\$13,839
Engineering	2,407	2,852	3,373	3,554	3,709	3,448	3,786	3,423	4,237	3,534
Facilities, Fleet & Operations	11,716	11,201	12,975	12,933	11,671	12,831	13,728	13,046	14,873	13,398
Finance & Business Services	5,258	5,836	6,013	6,036	6,136	6,494	6,824	6,961	8,449	7,416
Administration	4,909	4,640	6,865	8,217	8,629	7,437	4,671	4,149	4,049	10,441
Total	\$37,975	\$39,242	\$42,130	\$43,022	\$43,247	\$42,883	\$43,488	\$40,854	\$45,769	\$48,628
Net Revenue	\$21,552	\$20,052	\$19,845	\$20,910	\$26,493	\$24,557	\$29,398	\$33,706	\$34,577	\$34,254
Cash Capital Program	\$12,452	\$4,633	\$9,364	\$16,443	\$18,878	\$14,662	\$16,345	\$13,502	\$15,266	\$13,487
Capital Lease Payments	\$1,376	\$1,303	\$1,231	\$641	\$620	\$586	\$341	\$331	\$0	\$0
Water Revenue Debt Service	\$7,991	\$10,020	\$10,568	\$10,619	\$10,837	\$10,863	\$11,511	\$11,899	\$11,078	\$11,936
Coverage Excluding Obligations on Lease Facilities	2.70	2.00	1.88	1.97	2.44	2.26	2.55	2.83	3.12	2.87

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Performance **Metrics**

MCWA is always seeking to improve. As a result, we compare ourselves, whenever possible, to national standards of performance, including our own from previous years.





QUALITY

of complaints/1,000 customers

MCWA's Customer Service Information System includes tracking mechanisms for categorizing and measuring the number of customer calls specific to quality. In 2021, MCWA received 280.

2021

(per 1,000 customers)

1993

(per 1,000 customers)



RESPONSIVENESS

Call center wait time

MCWA answers your calls faster. In 2021, the average wait time for customers to talk to a customer service representative was a fraction of the national median (timed in seconds).

National Median



EFFICIENCY

Accounts per employee

In 2021, MCWA employees handled nearly double the number of customer accounts as the national median.

MCWA

(accounts per employee)

National Median



REINVESTMENT

Maintaining infrastructure

MCWA's goal is to implement a budget that reinvests a minimum of 2% of annual revenues in the renewal and replacement of our infrastructure. In 2021, our reinvestment in infrastructure replacement exceeded 20%.

MCWA



COST

2021 rate comparison MCWA residents pay less per

month than our neighbors.

Onondaga County \$37.88 City of Rochester \$35.81

MCWA

National Median



RELIABILITY

Water main breaks/100 miles

The AWWA benchmark for system integrity is less than 18.9 combined leaks and breaks/100 miles of pipeline per year. MCWA's distribution system includes 3,398 miles of water main.

MCWA

(per 100 miles of pipeline)

National Median

(for utilities of similar size)

MONROE COUNTY WATER AUTHORITY



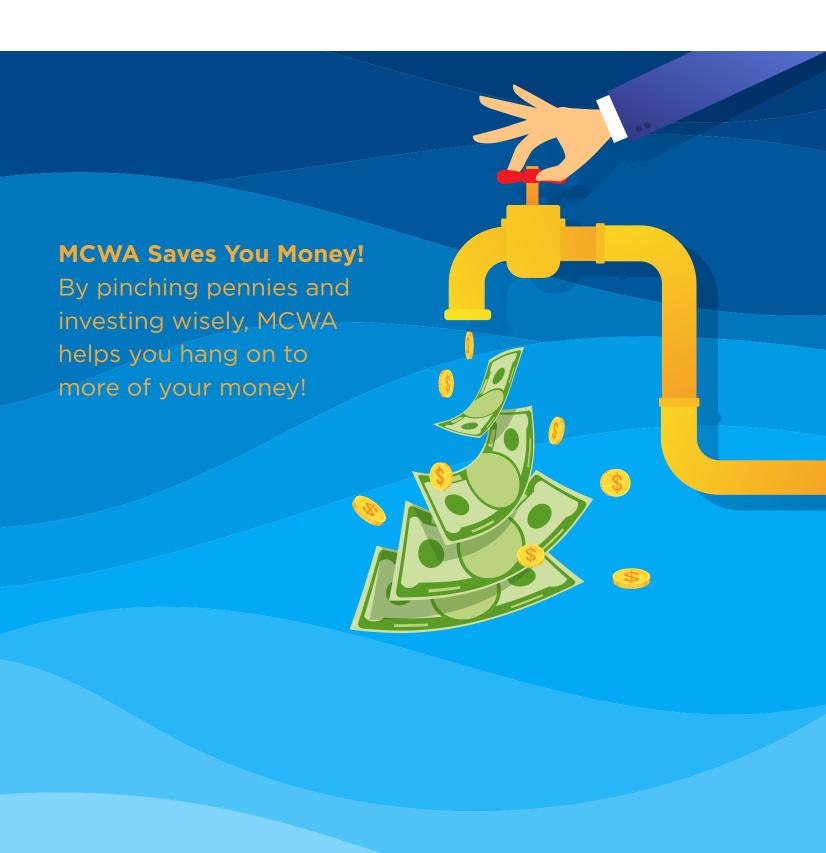
Customer Base

	Sales 1000
and Industrial	Gallons
Lidestri Foods Inc. (2 meters)	345,846
Xerox	192,859
Rochester Institute of Technology (4 mete	rs) 150,135
Wegmans (6 meters)	91,663
MDC Coast 24 LLC	
(Royal Car Wash) (7 meters)	83,493
Delta Sonic (4 meters)	75,793
Six Flags Darien Lake	52,886
Tech Park Owner LLC	47,480
Bonduelle USA Inc. (was Birdseye)	
- Bergen (2 meters)	39,634
Arctic Glacier	27,176
Subtotal	1,106,965
Remaining 419 Accounts	1,236,124
Total	2,343,089

	Customers	Sales 1000
Water Districts	by Town	Gallons
Genesee County	10,337	607,301
Wayne County W&S	8,900	331,751
Village of Brockport	1,825	265,600
Sea Breeze Water District	3,129	199,202
Village of Hilton	1,716	143,837
Livingston County W&S	900	80,226
Village of Victor	1,014	70,952
Town of Clarendon	817	40,842
Village of Holley	872	37,923
Town of Murray	375	25,086
Town of Canadice	145	9,206
Town of Farmington	12	960
Total	30,042	1,812,886

Residential and Small Commercial	Customers by Town	Sales 1000 Gallons
Town of Greece	33,497	2,212,578
Town of Irondequoit	16,666	1,042,035
Town of Perinton	14,281	967,748
Village of Fairport	2,067	118,937
Town of Henrietta	13,799	957,538
Town of Webster	14,281	933,062
Village of Webster	1,585	144,255
Town of Penfield	12,842	932,989
Town of Brighton	10,130	861,601
Town of Pittsford	9,112	702,414
Village of Pittsford	672	43,643
Town of Gates	10,444	673,198
Town of Chili	9,685	630,237
Town of Victor	4,695	365,261
Town of Ogden	5,123	335,715
Village of Spencerport	1,322	82,208
Town of Parma	3,834	210,744
Village of Hilton	192	6,693
Town of Hamlin	2,716	146,273
Village of East Rochester	2,405	144,616
Town of Clarkson	1,895	132,913
Town of Mendon	1,937	127,851
Village of Honeoye Falls	861	65,833
Town of Sweden	1,345	117,793

Residential and Small Commercial	Customers by Town	Sales 1000 Gallons
Town of Riga	1,216	75,517
Village of Churchville	890	44,085
Town of Rush	1,146	61,574
Town of LeRoy	836	61,359
Village of LeRoy	1,704	114,593
Town of Pembroke	613	53,015
Village of Corfu	289	12,741
Town of Wheatland	624	49,781
Village of Scottsville	749	46,626
Town of Richmond	1,077	40,524
Town of Kendall	830	37,406
Town of West Bloomfield	386	35,539
Town of Darien	382	31,684
Town of Stafford	559	26,739
Town of Byron	542	25,394
Town of Bergen	267	22,277
Village of Bergen	416	20,234
Town of Pavilion	342	20,639
Town of Caledonia	36	2,301
Village of Caledonia	6	718
Town of Bethany	36	1,128
Town of East Bloomfield	20	1,051
Town of Lima	12	968
Town of Covington		947
Total	188,375	12,742,975



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