



Metropolitan Water Reclamation District of Greater Chicago

President's Annual Message 2020: A Year in Review



The year 2020 will be etched in our memories as the novel coronavirus (COVID-19) pandemic swept through our communities claiming many lives, separating us from our friends, families and co-workers and challenging us in ways not imaginable. But it also gave us a reminder of the critical role we play in protecting our water environment. The word “resilient” is often used when discussing our work combating flooding, protecting our region’s water quality, and proving our sustainability. Yet it was our hard-working women and men at the Metropolitan Water Reclamation District of Greater Chicago (MWRD) who were resilient in 2020.

Staff reported to our water reclamation plants each day to treat wastewater, survey our waterways, mitigate flooding, monitor industrial waste, collect and analyze water samples and keep projects moving. Other staff working from home could meet with their colleagues on Microsoft Teams while forging ahead on contracts and permits from their kitchen tables, managing our real estate, and designing and maintaining infrastructure. Our Board of Commissioners united on video conference calls to advance this essential work and keep our region’s water flowing. Some of our staff manufactured face masks, face shields and touchless door openers from their homes. We worked together to keep our operations running, and I am so proud to play a part in this important work and continue our services on which communities rely. Here are a few memorable highlights and achievements through 2020 that marked our resiliency.

A handwritten signature in black ink that reads "Kari K. Steele".

Kari K. Steele

President of the Board of Commissioners

Financial responsibility

Despite the turbulent economy around us, we again received a stable outlook from Fitch Ratings, which maintained our AAA credit rating. The Fitch report cited the MWRD's strong revenue defensibility, low operating costs, minimal risk and flexible revenue raising options. This strong credit rating gives our taxpayers the confidence that the MWRD remains prudent financial stewards of their tax dollars. The MWRD's Comprehensive Annual Financial Reports, comprised of both audits of the MWRD and MWRD Retiree Health Care Trust, reflected healthy fund balances and controlled expenditures coming into the year. We also updated our investment policy calling for sustainability factors to be regularly considered when evaluating investments.

A utility of the future, again

The MWRD was bestowed with the distinguished title of a "Utility of the Future Today" for the second time. This three-year recognition program promotes the emerging transformation of traditional wastewater treatment systems and water utilities into community-based resource recovery centers that serve as leaders in the overall sustainability and resilience of the communities they serve.

Platinum performances

The National Association of Clean Water Agencies recognized the MWRD with six Platinum Peak Performance Awards for at least five consecutive years of meeting stringent permit guidelines at six MWRD WRPs, including the Calumet WRP, which earned platinum honors for meeting full compliance for 28 consecutive years. Despite the unpredictable nature of stormwater running off streets and sidewalks and wastewater flowing through our pipes, our resourceful staff and WRPs showed their merit against all types of odds.

Resource Recovery

Our staff not only transform water but also recover other beneficial resources that have untapped potential. Thanks to development of a revolving algal biofilm (RAB) system, our Monitoring and Research staff and partners from Iowa State University affiliate Gross-Wen Technologies received a \$240,000 grant from the U.S. Department of Energy's Office of Technology Transitions. This sustainable nutrient recovery system uses a unique alga harvesting process at the MWRD's O'Brien WRP greenhouse. For advancing algae technology and research, project partners received the Water Environment Federation's Ralph Fuhrman Medal for Outstanding Water Quality Academic-Practice Collaboration, as well as the Innovation Collaboration of the Year Award from the Algae Biomass Organization.

We continued our partnership with the Illinois Farm Bureau to develop nutrient loss reduction strategies

with the agricultural sector at our Fulton County best management practices test site. In October, we revised our Resource Recovery Ordinance to allow breweries the opportunity to deliver their organic waste locally at a more affordable cost at the Calumet WRP.

Energy continues to be the focus of our prized recovered resources. For decades, we have created clean, renewable energy from organic material removed from wastewater and generated hydroelectric power at our Lockport Powerhouse. This year we benefited by reducing our electrical energy consumption. Thanks to a \$1.5 million grant from the Illinois Environmental Protection Agency Office of Energy, our Stickney WRP's lighting and HVAC controls were upgraded for maximum energy efficiency. The upgrades reduce lighting energy consumption by more than 50 percent for approximately 7,474 fixtures that were replaced or retrofitted.

Studying our work and our river

This fall our scientists and partners at the U.S. Department of Energy's Argonne National Laboratory released the findings of a seven-year Microbiome Project. This groundbreaking study gave us an unprecedented look into the microbes that impact the quality of the Chicago Area Waterway System (CAWS) and ushered in a rare and comprehensive look into the health of a waterway. The study concluded that there were changes in the microbial composition and dynamics of the CAWS following the implementation of state-of-the-art disinfection technologies at the WRPs in 2016 and expansions to TARP. The microbiome study complemented additional research by the Shedd Aquarium and the MWRD this summer that showed a gradual increase in both the total number of fish and fish species in the CAWS. Thanks to our work and demand for clean water, the Chicago waterways are more ecologically productive and conducive to aquatic life than ever.

Stormwater management

The MWRD's Stormwater Management Program has become a critical tool of protection for Cook County. The program provides support for communities to undertake capital improvement projects that reduce the potential for stormwater damages to life, public health, safety, property and the environment. Between local and regional stormwater management projects, green infrastructure partnerships and flood prone property acquisitions, we have more than 170 projects in some phase of design or construction, and the totality of these projects are protecting more than 13,000 structures from flooding. The MWRD continues to address urban flooding through our Stormwater Master Planning program using a multi-faceted, holistic approach.

SPACE TO GROW

The MWRD continued its Space to Grow partnership to engage communities across Chicago and promote the importance of green infrastructure in the Chicago Public Schools. With the conversion of five more schoolyards from asphalt lots and rehabbing them into attractive, permeable surfaces, the total is now 25 schoolyards completed, retaining a combined 4.4 million gallons of water per rain event. Our Space to Grow program has been so successful that we are now studying the possibility of implementing a similar program in the suburbs.

WMO AND STORMWATER DETENTION TRADING

In 2020, we collaborated with municipal partners as well as planners, engineers, attorneys, state and federal agencies, non-governmental organizations, and the public, to revise the Watershed Management Ordinance (WMO). We implemented a pilot study to incorporate a regional stormwater detention and volume control trading program that allows developers to enter into agreements with offsite landowners to meet WMO permit stormwater requirements. The Lower Des Plaines River and Little Calumet River watersheds were selected for the study because of the large size and lower release rates in these areas.

Tunnel and Reservoir Plan (TARP) update

A new 20-foot diameter Des Plaines Inflow Tunnel and gate shaft are being constructed to connect McCook Reservoir Stage I directly to the existing Des Plaines Tunnel system. This critical project is on schedule for completion in 2021. Meanwhile, mining operations continue at McCook Reservoir Stage II. Through September, McCook Reservoir Stage I has captured 66 billion gallons of combined sewage and stormwater. When completed in 2029, the McCook Reservoir will provide 10 billion gallons of storage capacity and deliver more than \$143 million annually in projected flood reduction benefits. In the meantime, the Thornton Reservoir has captured more than 38 billion gallons since it went online in 2015.

Online payment system

We launched a new online payment system to expedite processing for permit applications and other programs. The online system assists applicants for WMO permits, lobbyist registrations, and coupon purchases for suppliers that contribute to the MWRD's resource recovery program. The new system modernizes operations for users while facilitating the MWRD's efforts to review and issue WMO permits as staff work remotely.

Ethics Ordinance

At our January meeting, our Board approved an ethics ordinance designed to strengthen and ensure ongoing transparent, responsible operations. The amended

ordinance expounds upon the provisions of the MWRD's 2004 Ethics Ordinance by adopting new provisions and expanding others that collectively represent best practices in all aspects of our work to protect the water environment. I applaud our Commissioners, Law Department and our Independent Inspector General for establishing these guiding principles that uphold the highest accountability practices.

Supporting wildlife and supporting our work

In 2020, we took up several causes that spoke to sustainability at our facilities, while also encouraging the wildlife that inhabits our planet. In February, the Board passed a resolution supporting the Illinois Monarch Project. To support the Illinois Monarch Project, we distributed free milkweed seed packets. We also enlisted the services of 65 goats and sheep to help trim overgrowth and invasive species and maintain the native prairie landscape at the Calumet WRP.

Community Outreach and Stakeholder Engagement

As an organization funded through taxpayer support, it is important that the MWRD be transparent in all that it does. We work hard to communicate how we spend taxpayer dollars and how our work is positively transforming the environment. Prior to the pandemic, our Commissioners and staff attended thousands of events and we hosted hundreds of tours at our facilities. Like every other organization, we had to pivot to a virtual environment. Due to the Governor's order, our Board meetings were held virtually. Our staff participated in Teams and Zoom calls, lead virtual tours, created videos, and held our first virtual Sustainability Summit. We produced a "Where Does It Go" storybook to share with younger audiences to explain how we treat wastewater. I'm also happy to report that our Public and Intergovernmental Affairs Officer received the Public Communication and Outreach Program award from the Water Environment Federation.

Diversity & Inclusion

Recruitment

At the MWRD we actively work to highlight our career opportunities to diverse student populations. To assist in this effort, we actively recruit students from Historically Black Colleges and Universities as well as the Hispanic Association of Colleges and Universities.

New Apprenticeship Program

The MWRD has made great strides in our diversity efforts. We have a minority workforce representation of 43 percent and a female workforce representation of 26 percent as of June 30, 2020. Due to the industrial

work environment, recruiting females and minorities remain a challenge, but we are continuing to make gains. In 2020, the MWRD hired six Trainees under a unique apprenticeship partnership with one of the unions that represents District employees. The MWRD will continue to explore additional trainee and apprenticeship opportunities in the skilled craft classifications with the goal of increasing female and minority representation in these classifications.

Mentorships

One of our internal development initiatives is the Engineer Mentoring Program. This program provides professional development opportunities to entry-level engineers by expanding their internal network. We pair participants with Senior-level engineers that provide one-on-one mentorship. Mentors share their knowledge of the MWRD's mission while assisting with the advancement of technical and professional skills. These programs are important in preparing our female and minority engineers for increasing responsibilities and roles at the District. In addition, while our internship program for 2020 was cancelled due to the pandemic, we fully expect to be back with a robust internship program in 2021 that will be open to all.

Goals and Milestones

Action for our climate, sustainability, and resilience

The Chicago region experienced record rain totals for the third consecutive year for the month of May. In the face of climate change, a committee of interdepartmental staff took a crucial next step to research and draft two critical strategic documents that will help guide the organizational culture, goals, and priorities for the MWRD for generations to come. The Climate Action Plan and Sustainability and Resiliency Action Plan will help us prove our resilience while addressing ways we can reduce our carbon footprint and think sustainably in adapting to and mitigating the effects of climate change.

Raising the Black Heritage Flag

On Feb. 4, we were joined by elected officials, community leaders, educators and staff to raise the Black Heritage Flag for the first time in the MWRD's history in front of the MWRD headquarters. A short time later, other government institutions followed with flag raisings of their own throughout the state. We raised the Black Heritage Flag to express our support for the black community and commitment to diversity.

LGBTBE and BEPD Policies

Our Board approved two new policies that will promote opportunities for small business enterprises owned and operated by both members of the LGBT community and persons with disabilities. For decades, we have been leaders in creating business opportunities for small and disadvantaged business owners. Under these policies, LGBT business enterprises (LGBTBE) and business enterprises owned and operated by persons with disabilities (BEPD) are now included in established MWRD policy that assists small business enterprises that are owned and operated by minorities, women, and veterans.

Juneteenth

The Board unanimously decided to recognize Juneteenth as an optional holiday for employees. Juneteenth occurs on June 19 to celebrate the emancipation of those who had been enslaved in the United States. MWRD officials agreed this is an important and significant day in history to encourage people to come together, recall and reflect upon of all sacrifices and struggles for civil liberties and equality, and to be mindful of treating all people with respect and courtesy.

Conclusion

Under extraordinary circumstances, we prevailed in 2020. It is that determination, vigilance, open lines of communication and foundation that will guide us in 2021. We do not know what the future holds, how our workplace will look or how work functions may evolve from remote settings. One thing is clear: we will be ready. As this year has proven, our service is essential. So many of our dedicated staff continued to come to work each day to ensure our water environment was protected, our wastewater treated and stormwater managed, and those who worked from home provided a critical backbone of support to keep our region thriving. During this time, we have done an amazing job of wearing masks, washing our hands, and acknowledging strong social distancing habits. THANK YOU to our MWRD team of professionals for embracing the changes, remaining resilient, adhering to an all-new work environment and Center for Disease Control (CDC) guidelines as we continue to achieve our essential mission during these unprecedented times. It is my sincere hope that everyone in our MWRD family, our taxpayers, stakeholders, and partners have a healthy and resilient 2021. We are in this together!

