



Metropolitan Water Reclamation District of Greater Chicago

President's Annual Message 2017



Over the past three years as president of the Metropolitan Water Reclamation District of Greater Chicago (MWRD) Board of Commissioners, I have had the pleasure of watching the MWRD exceed expectations in improving our environment. During that time, we have taken major steps toward fulfilling our vision statement of "Recovering Resources, Transforming Water." Certainly the pinnacle of these 2017 achievements is the opening of the McCook Reservoir Stage I, the last of three reservoirs constructed to protect the area waterways from pollution and mitigate flooding. When completed, this reservoir will be the largest of its kind in the world, providing 10 billion gallons of storage. Here is the annual review of other significant accomplishments this year.

A handwritten signature in black ink, appearing to read "M. Spyropoulos". The signature is fluid and stylized, with a long horizontal line extending to the right.

Mariyana T. Spyropoulos

President of the Board of Commissioners

We had an award winning year

The Water Environment Federation (WEF) honored our work by bestowing us with three major awards at the world's largest annual water quality event, the Water Environment Federation Technical Exhibition and Conference (WEFTEC). The MWRD received two awards both for the completion of the Calumet System of the Tunnel and Reservoir Plan (TARP), as well as a Project Excellence Award for the completion of the nutrient recovery facility at our Stickney WRP. The nutrient recovery facility transformed the largest water reclamation facility in the world into a resource recovery facility.

The District received three awards for our creative use of 1.8 million cubic yards of overburden materials from McCook Reservoir which created Centennial Hill. After winning a statewide award for mined land reclamation from the Illinois Department of Natural Resources (IDNR), the MWRD received the Interstate Mining Compact Commission's Kenes C. Bowling National Mine Reclamation Award. The National Association of State Land Reclamationists recognized Centennial Hill for Best Innovation in Mining. In keeping with our efforts to recover and reuse resources, we are proud to be recognized for successfully reclaiming mined land.

We were recognized by the Illinois Water Environment Association and WEF as water leaders from across the state. I was honored to receive the Public Official Award, and the Laboratory Analyst Award was given to Assistant Director of Monitoring and Research Donna Coolidge.

We received three more awards for our shared role in implementing UV technology to improve water quality at our O'Brien WRP. The awards include: the American Academy of Environmental Engineers and Scientists 2017 Honor Award for Design; the American Council of Engineering Companies (ACEC) National Recognition Award; and the ACEC of Illinois Honor Award, which recognizes exceptional engineering projects that benefit the public welfare. The O'Brien WRP uses UV technology to disinfect water as a final layer to its treatment process to reduce pathogenic bacteria in the water being released from the plant into the North Shore Channel. It is considered the largest wastewater treatment UV installation in the world.

Our flood solutions plan for Chicago's South Side claimed the Innovation Award from the Illinois Association for Floodplain and Stormwater Management. The award was presented for work on a pilot stormwater management study that focused on urban flooding in a 17-square-mile residential area covering portions of eight city of Chicago wards on the South Side. The study evaluated how best to scale up green infrastructure (GI) within the urban landscape of Chicago to eliminate basement backups and alleviate street flooding.

We implemented a new compost and yard waste program

Our Monitoring & Research Department introduced two new programs this year. This summer, we began offering exceptional quality compost at two locations. Our compost is a product of water treatment that improves soil quality by supplying organic matter, improving soil structure and porosity for a better plant root environment, and retaining nutrients longer which allows plants to more effectively utilize them. This blend is effective, economical and already popular with gardeners, park districts, golf courses and landscapers. In fact, the compost had a dramatic effect on an unused piece of property in Franklin Park, turning it into a garden with 12-foot sunflowers and 18-inch corn husks. We also provided 110 tons of compost in collaboration with the Cook County Sheriff's office, the Ford Heights Park District, the Baseball Tomorrow Fund, Cubs Charities, James McHugh Construction, the U.S. Army Corps of Engineers and other partners to deliver a state-of-the-art baseball field in Ford Heights. The field provides young baseball players an opportunity to play on a local field instead of having to travel to

neighboring suburbs which previously hampered local involvement. What once was a team of 10 players traveling without a home field expanded to a league of five teams consisting of 55 11- and 12-year-olds playing ball games on their regulation-size youth baseball field.

In September, we delivered 300 tons of compost to the Skokie Park District for the construction of a youth soccer field that will be unveiled next year. We have also partnered with other municipalities and park districts to distribute this sustainable resource that improves soil structure and is beneficial to our environment.

The second program pertains to our acceptance of yard waste and other organic materials to help produce the compost. Municipalities, park districts, landscape maintenance companies, yard waste haulers, tree trimming companies and utilities looking to unload bulk piles of woodchips are invited to participate in the program.

We pursued water reuse

In keeping with our resource recovery model, the MWRD Board of Commissioners agreed to establish an introductory price of \$1 per thousand gallons for the clean water we produce with the flexibility to adjust the price based on market conditions. Water reuse involves recycling treated water for beneficial purposes such as agricultural and landscape irrigation, industrial processes, toilet flushing, and replenishing the ground water basin. In addition to being harnessed, water itself is also reused directly through the MWRD treatment process. Every day, 15.1 million gallons are reused in pipeline flushing, blower motor cooling, post-centrifuge centrate flushing and tank cleaning. When used appropriately, recycled water can satisfy many water demands while presenting financial savings and promoting water conservation by decreasing the diversion of water from sensitive water bodies like Lake Michigan. We are exploring partnerships and different opportunities to ensure this water can find new opportunities which will, in turn, strengthen our role as stewards of our water environment.

We continued restoring the canopy

We continued our popular program, Restore the Canopy: Plant a Tree, designed to help Cook County and its residents manage an increasing load of stormwater and replace the tree canopy that has been devastated by the emerald ash borer and severe weather. Besides greening our communities, the trees assist in stormwater management by absorbing stormwater and lessening the load to our sewer systems. I'm pleased to report that since the program started in mid-2016, we have distributed more



A ribbon cutting ceremony to mark the completion of the 3.5 billion gallon McCook Reservoir Stage 1 was held December 4, 2017. Stage I is estimated to provide \$114 million per year in flood reduction benefits to 3.1 million people in Chicago and 36 other communities. When McCook Reservoir Stage II is completed, the reservoir will have a total storage capacity of 10 billion gallons and deliver an estimated total of \$143 million per year in flood reduction benefits.

than 42,000 saplings. To aid in this effort, the MWRD partners with dozens of municipalities, schools, and community groups to distribute the trees.

We continued our partnership with the Space to Grow program

Our award winning Space to Grow program gained widespread national recognition when the US Water Alliance acknowledged this partnership for its ability to maximize environmental and community benefits through the transformation of local schoolyards. The collaborative program converts Chicago schoolyards into community spaces for physical activity, outdoor learning, environmental literacy and engagement with art, while also addressing neighborhood flooding issues. The projects serve a vital purpose in educating school communities about the value of green infrastructure. Our engineers are sharing their design expertise in planning for the next five schools to be built in 2018. The Space to Grow program was highlighted in the national briefing paper, "An Equitable Water Future," as a case study that exemplified how water infrastructure investments

can lead to neighborhood revitalization. The Space to Grow project was named one of the Top Projects for 2017 by *Storm Water Solutions* magazine.

We hosted two diversity outreach vendor fairs

To expand and maximize business opportunities for local Minority Business Enterprises (MBE), Women Business Enterprises (WBE) and Small Business Enterprises (SBE), we welcomed hundreds of contractors, consultants, subcontractors and potential vendors during two vendor outreach fairs. Participants met with MWRD officials and other firms to learn how to register as a vendor and secure work opportunities with contractors and the MWRD.

We began accepting liquid waste for enhanced biological phosphorus removal (EBPR)

We began removing and recovering phosphorous from our treated water. In May, the MWRD began accepting liquid waste

from local breweries as well as sugary and starchy liquid wastes. What makes this waste special for the EBPR process is the readily biodegradable carbon that serves as food for the phosphorus accumulating organisms that work under anaerobic and aerobic conditions in the secondary treatment.

We helped launch Overflow Action Days

We joined the Friends of the Chicago River in launching the Overflow Action Days initiative to educate area residents to use less water at home when weather forecasts predict significant rain, thus giving sewers more capacity to handle rain and improving our water environment. Overflow Action alerts remind people to conserve water before and during rain events. Actions such as delaying showers or reducing their duration, flushing less, and waiting to run the dishwasher can help reduce the amount of water in the sewer system. If our residents keep water from entering the water treatment system, there will be more space in the sewers to accommodate rain water and our waterways will be cleaner. We were reminded throughout the year of the importance of conserving water at home after several significant rain events impacted our region.

We celebrated

We believe in paying tribute to significant groups and occasions throughout the year. This year we celebrated African American History Month by inviting a panel of former aldermen that served under Mayor Harold Washington.

During National Engineers week February 19-26, the many contributions of engineers were commemorated by the MWRD Board of Commissioners through a resolution celebrating National Engineers Week. Engineers Week provides an opportunity for engineering professionals to extol their impact on the world and increase public dialogue about the need for future engineers and their work.

In March, the MWRD celebrated Women's History Month to honor the more than 500 women employed by the MWRD. Three employees received specific recognition for contributions in their respective fields as supervising environmental specialist, environmental chemist, and engineering technician.

As part of our annual recognition for Veteran's Day, we honored the military service of Secretary of State Jesse White and Assistant Director of Illinois Department of Veteran's Affairs Harry F. Sawyer. As with all of our men and women who serve, we are thankful to Secretary White, Assistant Director Sawyer, and our own district employees who served, for their sacrifice on behalf of this country.

We educated

We participate in more than 100 community events every year to discuss our work. In addition to providing tours of the McCook Reservoir and our facilities, commissioners and staff give hundreds of presentations throughout the county. This year, the MWRD facilitated WaterPalooza and an outdoor garden construction event at Manierre Elementary School to kick off WEFTEC 2017 in September. WaterPalooza is a fun day of hands-on environmental activities for students and teachers. The following day, volunteers and water experts transformed a paved, flood-prone area into an outdoor classroom that will also capture stormwater. MWRD coordinates this effort every other year with other government agencies, elected officials and water companies. Manierre School is also our Working in the Schools (WITS) partner where MWRD staff visit once a week to read to students.

We held our fifth annual Sustainability Summit at the Stickney Water Reclamation Plant (WRP) in October. This event offers local government leaders, park districts, landscapers and others to learn about our initiatives, specifically our biosolids and new compost program.

In pursuit of our ongoing goal of providing safer and cleaner waterways, the MWRD set up permanent collection boxes for safe disposal for unused and expired medication at four locations. We also continue to partner with the U.S. Drug Enforcement Agency's National Prescription Drug Take Back Days.

MWRD produced a new brochure entitled "A healthy waterway begins with you: A Guide to Water Wellness." Readers are encouraged to consider how they can make lifestyle modifications that will result in fewer contaminants entering the waterways.

Commissioner Timothy Bradford Passes

Commissioner Timothy Bradford passed away suddenly on December 1. Tim was not only a colleague, but a mentor, a confidant, an entertainer, and most importantly, a dear friend. He was larger than life, and his passing has left our Board shocked and saddened. Tim was a proud man. He was proud of his family, proud of his work in the community, proud of the help he was able to give to so many people throughout his life. And we, the Metropolitan Water Reclamation District, are so very proud to be able to claim him as one of our own. Tim, we love you, we miss you, and we promise to carry on the important work you did for the people of Cook County.

