

Metropolitan Water Reclamation District of Greater Chicago

Press Release

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For immediate release October 31, 2018

MWRD, Army Corps project earns mega engineering award from ASCE



For their roles on the Chicago Underflow Plan and McCook Reservoir project, the U.S. Army Corps of Engineers Chicago District (USACE) and MWRD were awarded with the Illinois Section of the American Society of Civil Engineers' (ASCE) Outstanding Civil Engineering Achievement, Mega Project Award. Photo provided by USACE.

The Illinois Section of the American Society of Civil Engineers has recognized the Metropolitan Water Reclamation District of Greater Chicago (MWRD) and project partner, the U.S. Army Corps of Engineers (USACE), with a prestigious honor in mitigating flooding and improving local water quality.

For their roles on the Chicago Underflow Plan (CUP) and McCook Reservoir project, the USACE and MWRD were awarded with the Illinois Section of the American Society of Civil Engineers' (ASCE) Outstanding Civil Engineering Achievement, Mega Project Award. The award was presented at the ASCE Illinois Section Awards Dinner held earlier this month at The Crystal Gardens on Navy Pier.

"Congratulations to our engineers at the MWRD and U.S. Army Corps of Engineers' Chicago Office for collaborating and fulfilling a critical plan that will protect our waterways from pollution and our homes and streets from flooding," said MWRD President Mariyana Spyropoulos. "The Mc-Cook Reservoir has been showered with awards in its first year, but it is the heavy rain showers that the reservoir protects us from that allows it to truly make its mark."



Stage I of the McCook Reservoir, part of the MWRD's ambitious Tunnel and Reservoir Plan, has been named an Outstanding Civil Engineering Achievement by a local chapter of the American Society of Civil Engineers.

The USACE's CUP and the MWRD's Tunnel and Reservoir Plan (TARP) consists of three reservoirs intended primarily for flood control for the Chicago area serviced by combined sewers. It also works to prevent pollution in local waterways. Two of the TARP reservoirs are completed, including the Majewski Reservoir (350 million gallons) and Thornton Composite Reservoir (7.9 billion gallons). The McCook Reservoir is being constructed in two stages; the first stage was completed last December and the second will be done by 2029.

TARP Phase I, completed in 2006, includes 109.4 miles of deep, large diameter, rock tunnels that capture and enable treatment of about 85 percent of the combined sewer over-flow pollution from TARP's service area.

Benefitting 3.1 million people living in Chicago and 36 suburbs, McCook Reservoir Stage I captures and stores water before it can be sent by gravity and pumped from TARP to MWRD water reclamation plants to be cleaned and released to waterways. Since coming into service at the beginning of 2018, the reservoir has captured 20 billion gallons of water. Stage 1 of the reservoir has 3.5 billion gallons of storage capacity and provides an estimated \$114 million per year in flood reduction benefits, while also capturing *(continued)*

MWRD, Army Corps project earns mega engineering award, cont.



MWRD commissioners celebrated the opening of Stage I of the McCook Reservoir last December, proclaiming a new day of protection improved area water quality through the storage capacity of 3.5 billion gallons of water.

untreated water that previously overflowed into waterways during storm events. Stage II of the reservoir, due for completion by 2029, will be able to hold an additional 6.5 billion gallons. When complete, the four TARP tunnel systems and three huge reservoirs the tunnels flow into, will have a capacity of more than 20 billion gallons.

"Thank you to the Illinois Section of the American Society of Civil Engineers for recognizing these crowning engineering achievements made through the implementation of the Chicago Underflow Plan and the construction of the Mc-Cook Reservoir," said MWRD Commissioner Frank Avila. "TARP is putting tax dollars to work and providing relief at a time when unpredictable weather patterns are impacting our daily lives."

When it is completed, McCook will surpass the MWRD's Thornton Composite Reservoir as the largest reservoir of its type in the world. The reservoir will be so large that more than 11 Soldier Field Stadiums could fit inside it, and is nearly deep enough at 300 feet to stack another 11 on top of that. To create Stage I of the combined sewer reservoir,



The McCook Reservoir Stage I filled in June, demonstrating a fully operational system retaining water that formerly discharged to the Chicago Area Waterways System or ended up in basements of homeowners and businesses. Another 6.5 billion gallons of capacity will become available through Stage II.

the MWRD removed 9.4 million cubic yards of overburden, enough to fill the Merchandise Mart eight times over.

"The McCook Reservoir project is an exceptional project that reduces the flood risk to over 3 million people in the Chicagoland area," said William A. Rochford, P.E., Chief, Geotechnical & Survey Section, USACE. "This project was envisioned by the MWRD many decades ago and was implemented by the Corps in partnership with the MWRD through the efforts of many individuals of both our organizations and the many design and construction firms needed to bring the project together. It required many innovative and creative solutions to significant challenges in order to safely construct a reservoir 300-ft below ground between two waterways and next to an interstate highway. The benefits of this project have been demonstrated almost immediately since becoming operational this past January, having been filled four times so far this year. It has been a project that has advanced the state of the art in numerous areas and has been a great pleasure and professionally rewarding to be a part of the team to making this project a success."

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Recovering Resources, Transforming Water

Established in 1889, the MWRD (www.mwrd.org) is an award winning, special purpose government agency responsible for wastewater treatment and stormwater management in Cook County, Illinois.