

# Advancing water reuse in Chicago

AAEES/AIDIS/WEF breakfast guest shares details of major Chicago projects

It's fitting that Chicago hosted WEFTEC® 2015, the largest annual water show in the world because the city is a trendsetter in water advancements.

At WEFTEC, the annual breakfast sponsored by the American Academy of Environmental Engineers and Scientists (AAEES; Annapolis, Md.), the Inter-American Association of Sanitary and Environmental Engineering (AIDIS), and the Water Environment Federation (WEF; Alexandria, Va.) provided a snapshot of several of Chicago's current water projects.

Catherine O'Connor, director of engineering for the Metropolitan Water Reclamation District (MWRD) of Greater Chicago, offered details about several projects ranging from nutrient recovery to water reuse that the utility is conducting at its facilities and with its partners. MWRD currently has four projects moving forward, O'Connor said.

First, MWRD is building a nutrient recovery project. It involves installing three Pearl 10000 systems by Ostara Nutrient Recovery Technologies Inc. (Vancouver, British Columbia). The utility expects to return 10,000 tons of struvite to the economy and potentially recover \$4 million from the \$3 million in operational costs it will invest in the project.

Second, the utility is cooperating with



**Catherine O'Connor, director of engineering for the Metropolitan Water Reclamation District (MWRD) of Greater Chicago, shared details of the many new projects the utility is conducting.** Oscar & Associates

Chicago Public Schools and other entities to install green infrastructure at schools. The goals is to capture 341 m<sup>3</sup> (900,000 gal) of stormwater.

Third, MWRD plans to create the world's largest rain barrel. The utility will convert an abandoned Department of Water Management tunnel into a 30,300 m<sup>3</sup> (8 million gal) storage tank.

Fourth, MWRD will use wood chips

and wastewater residuals to make Class A biosolids. MWRD signed a contract with the Bureau of Forestry to obtain 150,000 tons of wood chips. The utility co-composts the chips and residuals to create topsoil.

**— LaShell Stratton-Childers, WE&T**