

# Finished Water

A PHOTOGRAPHIC PROFILE



MWRD's water treatment protocols now encompass a chlorination/dechlorination process to reduce the amount of pathogenic bacteria in the water released from the plant into the Calumet River system.

## DISINFECTION FACILITY AIMS TO RESTORE CHICAGO'S SOUTH SIDE WATERWAYS

On July 17, 2015, community leaders met on Chicago's South Side to celebrate a new disinfection facility's opening at Metropolitan Water Reclamation District (MWRD) of Greater Chicago's Calumet Water Reclamation Plant, which serves more than a million water customers in a 300-mi.<sup>2</sup> area. As late as 2011, Chicago Area Waterways (CAWS) had secondary classification from the US Environmental Protection Agency (USEPA) for water quality standards, disallowing direct water contact beyond boating.

With the hope that USEPA might one day reclassify CAWS to allow primary contact, in 2011 the MWRD Board of Commissioners for the first time in MWRD history adopted a policy to disinfect the plant's treated wastewater. MWRD officials evaluated available disinfection tech-

nologies. To accommodate the selected disinfection technologies, the plant's chlorine contact basin was retrofitted to achieve efficient contact to neutralize/kill bacteria and microorganisms.

District president Mariyana Spyropoulos marked the event, noting that "creating a disinfection facility at Calumet is another chapter in our history of water treatment and one more upgrade we have made into improving the region's water quality."

### PROJECT SPECIFICS

**Project Name:** Calumet Water Reclamation Plant disinfection facility

**Operator/Contractor:** Metropolitan Water Reclamation District of Greater Chicago

**Completion Date:** July 2015

**Water Source:** Calumet River

**Technology:** chlorination and dechlorination, screening, filtering, settling, and microbial aeration. Engineers replaced all interior baffle walls and associated walkways, weir gates, discharge gates, drain sluice gates, inlet sluice gates, and a bypass sluice gate; they also installed liquid sodium hypochlorite diffuser piping, liquid sodium bisulfite diffuser piping, and sampling pumps.

**Project Cost:** \$31 million

**Service:** Serving more than 1 million customers, the plant cleans 480 mgd, improving water quality for recreational users and wildlife

**Staff Size:** 268

**Special Features:** Disinfection comes online at the same time as MWRD's nearby 7.9-bil gal Thornton Reservoir.