

# Technical Tour

## WaterOne Hansen Water Treatment Plant

Thursday, August 31

**Registration Note: The registration deadline is August 11. For US citizens, a copy of your driver's license is required, and for non-US citizens, a scan of your passport is required at the time of registration. Please wear comfortable, closed-toe shoes.**

### Kansas City Zoo

The Kansas City Zoo, located in Swope Park, has been home to more than 1,700 animals since its start in 1909. Spanning over 200 acres, the zoo offers a diverse range of exhibits and attractions that showcase a wide variety of animal species from around the world. Visitors can explore themed areas like Africa, Australia, and Asia where animals such as lions, elephants, kangaroos, and tigers can be found. The zoo also features a tropical rainforest exhibit, an African savannah habitat, and a penguin plaza. With its focus on conservation, education, and providing a memorable experience for visitors of all ages, the KC Zoo continues to be a beloved destination for all animal enthusiasts.

As part of the IOA exclusive tour, participants will be taken behind the scenes of the zoo to learn about the systems meant to keep the animals healthy and thriving, especially their ozone system used to treat the water in many of their habitats. The KC Aquarium is set to open on September 1st, however, as part of this exclusive tour, IOA participants will get a chance to sneak behind the curtains of the brand-new aquarium as well.

### WaterOne Hansen Water Treatment Plant

The Hansen WTP is composed of two facilities: Facility 1, (56 MGD) constructed in the 1950s and Facility 2 (127.5 mgd) constructed in phases with the last completed in the 1990s. There are several unique attributes for this facility: source water is both the Kansas and Missouri Rivers, which are subject to large changes in water quality, organic content, taste- and odor-causing compounds, constituents of emerging concern, and bromide. Second, the facility had limited space for additional treatment processes.



The facility was upgraded with ozone in 2020 to improve water quality and allow WaterOne to proactively meet future drinking water regulations. In addition, ozone allowed WaterOne to operate more efficiently and cost effectively and is projected to pay for itself within 20 years due to reduced operating expenses.



Ozone was added upstream from precipitative lime softening and used for disinfection, control of taste and odor causing compounds, and oxidation of constituents of emerging concern. A centralized 8,000 ppd ozone generating facility with ozone generators of 1,000 ppd and 2,000 ppd were installed to allow operation at the minimum and peak ozone production setpoints. Ozone is delivered by sidestream injection into two pipeline contactors (96-inch and 108-inch) serving Facilities 1 & 2, respectively.

Visitors will tour the various treatment process areas of the facility including liquid oxygen storage, ozone generation, ozone sidestream injection, lime softening basins, filters, and laboratory space. Other highlights of the tour will be consuming water that won both the Best of the Best Water Taste Test and the People’s Choice Water Taste Test at the American Water Works Association’s (AWWA’s) annual conference, ACE22.

### Technical Tour Schedule

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8:30	8:40	<b>Board Tour Bus</b> Meet outside at Hotel's Rotunda (Exhibit Hall Level)
8:40	9:00	<b>Drive to Kansas City Zoo</b>
9:00	11:00	<b>Tour Kansas City Zoo</b>
11:00	11:30	<b>Board Tour Bus - Drive to WaterOne Hansen Water Treatment Plant</b>
12:00	1:00	<b>Lunch at WaterOne Hansen Water Treatment Plant</b> Training Facility
1:00	3:00	<b>Tour WaterOne Hansen Water Treatment Plant</b>
3:00	3:30	<b>Drive to and Dropoff at Kansas City International Airport</b>
3:30	4:15	<b>Drive to and Dropoff at InterContinental Hotel</b>