

MEMORANDUM

DATE: September 23, 2019
TO: Ted Corrigan, CEO and General Manager
FROM: Nathan W. Casey, P.E., Engineering Supervisor
SUBJECT: Waukee-Xenia Joint System Facilities

In February 2019, Des Moines Water Works (DMWW) entered into a 28E Agreement with the City of Waukee and Xenia Rural Water District for a joint project involving coordination and shared facilities that include a feeder main, a booster station, and control valves. The primary focus of this agreement was to enhance water delivery to Waukee without adverse effect to Xenia's system. This project included Waukee purchasing capacity in existing facilities owned but not fully used by Xenia Rural Water. These facilities included a feeder main, which runs through Waukee, and a booster station, located at the site of the LP Moon Pumping Station. The project also included construction of new control valves to control water feed into Waukee and Xenia's systems, along with relocating chemical feed facilities for Xenia.

For decades, Waukee has been supplied water from DMWW through the Waukee booster station and later through the shared elevated storage tank on 98th Street. Due to rapid expansion in Waukee over the last several years, these facilities have struggled to maintain adequate water supply into Waukee. To address this, DMWW approached Waukee with an idea to increase water supply without expansive infrastructure investment. The concept involved Waukee purchasing from Xenia the right to take water off of existing Xenia infrastructure. In 2008, Xenia constructed a booster station located near LP Moon and a 24-inch water main through Waukee along Hickman Road. Xenia was not able to fully utilize these facilities so excess capacity was available. Xenia sold 400,000 gallons per day of capacity in the booster station and feeder main to Waukee.

For Waukee to use Xenia infrastructure, new control valves and chemical feed facilities were required. Control valves were needed to control water supply to Waukee and Xenia at separate controlled rates. New chemical feed facilities were required so Waukee could continue to use free chlorine as a residual disinfectant while Xenia uses combined chlorine. These new facilities are located near the intersection of West Hickman Road and T Avenue. DMWW worked closely with Xenia, Waukee, and Waukee's consulting engineer to design, construct, and put these new facilities into operation.

The new facilities were put into service on July 3rd, 2019. Since that time DMWW has assumed operation and maintenance of the booster station and the control valves while Xenia operates the new chemical feed facility.