

Utilities Department Division Information

Water Treatment Plants

Provide and deliver safe drinking potable water with adequate supply and pressure. The City owns and maintains two water treatment plants. The Downtown Water Treatment Plant is located at 500 E. Mahl and the West Water Treatment Plant is located at 1752 S. Mon Mack. Both plants operate 24 hours per day, 7 days a week, and 365 days a year.

The Downtown Plant's rated capacity is 10 million gallons per day (MGD), has conventional sedimentation process with rapid sand filters. The West Water Treatment Plant's rated capacity is 8 MGD, is a solids-contact process unit with flow demand filters. Both plants primary disinfectant is chlorine dioxide and use chlorine and ammonia to form chloramines as the distribution disinfectant. The current average daily water treatment is 11.68 MGD, with peaks reading as high as 15.0 MGD during peak demands.

The City's primary source of raw water is the Rio Grande River. The City owns and operates a raw water reservoir located at 3420 W. Freddy Gonzalez, with a capacity to hold 210 million gallons (MG) or a 19 day supply. The City purchases raw water from Hidalgo County Irrigation District #1 and Hidalgo County Irrigation District #2.

It has a total of 7,981.32 acre feet, 5,390.00 acre feet are owned by HCID #1 for use by the City of Edinburg and the City owns 2,591.32 acre feet. The City also has emergency interconnects with North Alamo Water Supply Corporation (NAWSC) and the City of McAllen. These interconnections serve as means to purchase treated water from our neighboring water systems during emergency situations. The City's Water Treatment and Distribution Systems have been recognized by TCEQ and have been rated as a "Superior Public Water Supply" system.

Wastewater Treatment Plant

Produce an environmental safe fluid waste (effluent) and a solid waste (sludge) suitable for disposal or reuse. The City owns and operates its own Wastewater Treatment plant which is rated for 12.3 million gallons per day (MGD).

The Wastewater Treatment Plant is located at 1202 N. "M" Road and operates 24 hours per day, 7 days a week, and 365 days a year. The sewage collection system has forty-eight lift stations that pump the sewage into four (4) wastewater treatment processes. The overall design of the treatment processes consist of screening & grit removal; biological reactor, sedimentation & clarification, disinfection and proper disposal of effluent and solids.

The four treatment processes are as follow:

- Activated Sludge Plant rated at 2.0 MGD. This system utilizes aeration basins, air blowers and clarifiers for the purification process.
- Oxidation Ditch Plant rated at 1.3 MGD. This plant is an Extended Air Unit with each unit having a final clarifier.
- Orbal Plant rated at 4.0 MGD. This system utilizes two peripheral clarifiers for treatment.
- A newly constructed Oxidation Ditch Plant completed in 2013 rated at 5.0 MGD. This unit operates as an Extended Air Unit with each unit having a final clarifier.

Effluent from each process is combined at a contact basin where it is disinfected by means of an Ultraviolet light then discharged to Hidalgo County Main Drain Ditch, thence unto Laguna Madre. Some of the effluent is currently used for irrigation purposes and other as cooling water for power company processes.

Systems

Operate, maintain, and repair water distribution and/or sewer collection systems to provide excellent customer water & sewer services.

The Systems Division offices are located at 1201 N. Doolittle. The City services 24,100 water meter accounts throughout the distribution system which consists of approximately 333 miles of lines ranging in size from 4 to 30 inches. Fire protection is provided in part by some 1,850 fire hydrants. The sewer collection system has approximately 269 miles of lines ranging in size from 6 to 36 inches.