



PROJECT PROFILE

Fort Worth Zoo

Fort Worth, Texas

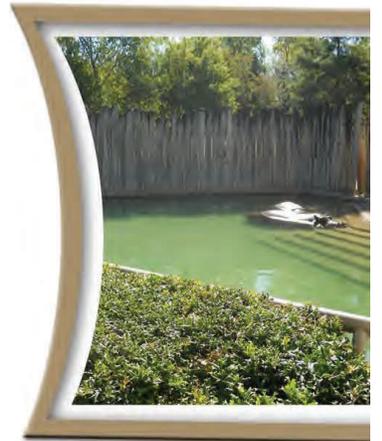
The City of Fort Worth Water Department strives to provide its residents and visitors with excellent service, while making sure taxpayer money is well spent. Water Management, Inc.'s (WMI) reputation as a leading water conservation company led the City to subcontract WMI to find unique ways to decrease the annual water expense of hundreds of ICI users through their Smart Water Audit program. At one of the ICI sites surveyed, The Fort Worth Zoo, WMI identified many innovative non-domestic ways to reduce water consumption.

The Fort Worth Zoo in Fort Worth, TX is a non-profit 501(c)3 organization run by the Fort Worth Zoological Association. The Fort Worth Zoo's animal collection includes more than 4,600 specimens that reside on roughly 64 acres.

The primary non-domestic features focused on during the audit were the animal water features which could provide a unique alternate water reuse with a large savings opportunity. In fact, two hippopotamus enclosure water features are responsible for the Zoo's largest waste of water. The features are small ponds in use for animal drinking and bathing and require bi-weekly emptying and filling using city water. This accounts for approximately 21,000 gallons of waste per week.

Upon evaluation it was learned that another small pond, the African Savannah Water Feature, is essentially using the same amount of water as the hippopotamus enclosure. However it is a constant-fill, constant overflow system that is supplied by well water. Roughly 15 gallons per minute is emptied into this pond which equates to 21,600 gallons per day. WMI proposed that the Zoo filter and pipe the well water from the African Savannah Water Feature to the hippopotamus enclosure ponds; thus completely reducing the need for city water for these features and saving the Zoo approximately 1.1 million gallons per year.

In addition, during the survey auditors identified several smaller animal enclosure watering holes that also operate as constant-fill, constant overflow systems 24 hours a day. Six of these watering systems together flow at approximately 9 gallons per minute, or 12,960 gallons a day and more than 4.7 million gallons annually. These systems need to operate when the animals are in their enclosures, but auditors suggested that the systems be fitted with valves that will shut-off for the 16 hours a day the animals are in their paddocks. By implementing this very simple and cost-effective measure, the Zoo can save more than 2.9 million gallons of water a year.



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