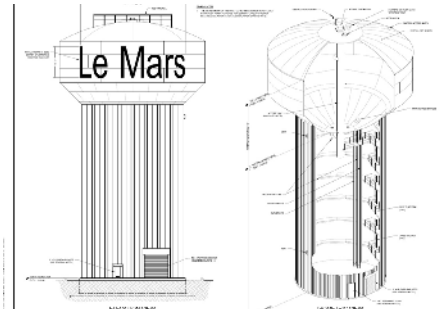
WATER TOWER

LE MARS, IOWA



PROJECT DESCRIPTION

The City of Le Mars faced an increased water demand from their growing community and a shortage of elevated storage. McClure helped the City update its water system comprehensive plan by establishing a 5, 10, and 20-year Comprehensive Improvement Plan, as well as financing and water rates. A new 1 MG elevated storage tank was deemed a top priority and included in the immediate 5-year CIP. Key challenges included the location of the tank and impacts to the airport, water quality concerns, operation of the existing 1 MG tank, and visibility from the Highway 60/75 By-Pass.

McClure used the City's updated water model to analyze water age and operation with the existing tower. It was determined a control valve would be beneficial to the overall operation. To improve water age, the new booster station was designed to pump out of the tank continuously to the higher elevation zone, while a separate inlet/outlet pipe would serve the lower elevation zone. This allowed the tank to directly serve two pressure zones. To address water quality, a tank mixing system was designed. The chosen mixing system was a Tideflex, a passive mixing system. McClure also worked with the Federal Aviation Administration (FAA) and the City's airport to resolve obstruction concerns with the tower.

PROJECT HIGHLIGHTS:

- 1 MG hydropillar tower.
- Coordination with FAA.
- Tank mixing system.
- Tank designed to serve two pressure zones in conjunction with a booster station.

COMPLETION DATE

2015

COST OF SERVICES

$2.5M

REFERENCE

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