

NEW WATER TREATMENT PLANT

FORT DODGE, IOWA



PROJECT DESCRIPTION

Faced with new water quality regulations and a desire to improve the drinking water quality of their community, the City of Fort Dodge turned to McClure to help plan, design, and construct a new Reverse Osmosis (RO) Water Treatment Plant. By reducing the hardness of the community's water, the City will be able to meet new chloride limits at the City wastewater treatment plant. The new RO system will also remove other naturally occurring constituents in the City's water supply, making the water safer to drink. The reduced water hardness will have other benefits as well including reduced costs for residential water softening, extended life of appliances, and other benefits associated with softer water.

PROJECT HIGHLIGHTS:

- **Largest RO water treatment facility in the State of Iowa.**
- State-of-the-art RO water treatment system to reduce water hardness by 75%.
- Removes other impurities such as ammonia, radium, chloride, and sulfate.
- 13.7 MGD total plant design capacity.
- 10 MGD of RO permeate design capacity.
- Six (6) RO treatment skids.
- Plant utilizes existing sand filters for pre-treatment.
- 24,000 square foot facility.
- RO concentrate collected and sent to City wastewater treatment plant for alkalinity recovery.

PROJECT DATES

Begin Design: November 2017
Complete Design: December 2018
Begin Construction: April 2019
Complete Construction: May 2021

CONSULTANT FEES + OVERALL PROJECT BUDGET

Total Project Cost: \$22,565,000
Total Construction Cost: \$19,975,542
Consultant Fees (Design through Construction): \$2,440,000

COST ESTIMATE

Engineer's Construction Cost Estimate:
\$16,966,000
Awarded Amount: \$19,970,000
Final Construction Cost: \$19,975,542

REFERENCE

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PROJECT TEAM:

Derick Anderson, PE: Principal-in-Charge
Michael Washburn, PE: Project Manager
Austyn Wolfe, PE: Project Engineer
Mike Trotter, PE, PLS: QA/QC Director