

Client: **Salt Creek Sanitary District** **Multi-phase Capital Improvement Program**

Deuchler has served as the District Engineer for Salt Creek Sanitary District since 1938; this relationship has endured based on Deuchler's engineering excellence, responsiveness and Salt Creek's trust in our commitment and expertise. Nothing illustrates this better than our multi-phase capital improvement program for Salt Creek balancing needs and financial constraints.

In 2004, the Phase III \$7.5 M construction project began. It was funded with both public funds and a federal grant. Project highlights included:

- Increased aeration capacity by 0.5 MG.
- Two new 75 foot diameter clarifiers and a new control building were added.
- New SCADA system, and UV disinfection were added.

In 2012, the Phase IV \$3.8 million tertiary filter replacement construction began.

The existing building, filters and associated equipment were all failing and posed safety concerns. Highlights included:

- Chemical storage and feed systems were built to meet future phosphorous regulations while remaining within the existing footprint of the filter building.
- Disc-filters were selected based on the building's small footprint, ability to meet hydraulic constraints, and ease of maintenance and operations

The last project, Phase V includes improvements to the digester complex and began construction for \$6.8 M in 2016. Highlights included:

- Two 55 foot fixed cover digesters and mixing equipment are being replaced.
- The methane gas produced in the digestion process will fire the new boiler heat exchangers; a new waste gas burner was also installed.
- A secondary digester has been repurposed for sludge holding. Also, the sludge holding tank off-gases are being treated in a bio-filter.
- Per NFPA 820 constraints, the existing buildings included new partitions, ventilation & electrical equipment.
- All of the major components were integrated into the existing SCADA system.
- Installation of a new bar screen occurred

Through the years, Deuchler has prepared numerous projects for the District including new primary sludge pumps, window and roof replacement, a new turbo blower and DO control system which was awarded a grant from the Illinois Department of Commerce and Economic Opportunity.

