



CASE STUDY

PROJECT NAME

Community-wide wastewater treatment upgrade
Rowan, Iowa

SYSTEM SPECIFICATIONS

Decentralized individual and cluster systems serving homes and businesses

PRODUCTS USED

20,400 linear feet of Infiltrator Quick4 Plus Chambers

INSTALLATION DATE

September 2017 – November 2018

OWNER

City of Rowan, Iowa

ENGINEER

Veenstra & Kimm
W. Des Moines, Iowa

CONTRACTOR

Mort's Water Company
Latimer, Iowa

ENVIRONMENTAL HEALTH OFFICER

Sandy McGrath
Wright County Health Department



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Individual and Cluster Decentralized Systems Solve Rowan, Iowa Wastewater Woes

SUMMARY

Rowan, Iowa was required by the State to upgrade all wastewater treatment systems in the City because the effluent was flowing into a field and emptying into a nearby creek. These included more than 150 residential, municipal, and commercial systems.

CHALLENGES

Limited space and access required unique onsite wastewater treatment designs layouts to serve daily flows and future maintenance needs. Rethinking drainfield installation on tight lots within city limits posed a new challenge for the team. Wastewater treatment systems were installed in groups of five to six. The process included locating utilities, replumbing basements to accommodate shallow systems, plugging abandoned wells, and installing iron filter backwash systems.

SYSTEM DETAILS

The project required 91 sewer hookups, 20,400 linear feet of Infiltrator Quick4 Plus Chambers, and boring 6,000 linear feet of 1 1/2 -inch force main. The variety of lot sizes and absorption field areas resulted in a mix of solutions. These included 50 conventional gravity-fed septic tanks and individual Infiltrator Quick4 Plus Chamber leachfields; 16 STEP tank systems feeding individual Infiltrator chamber drainfields; 18 STEP tanks feeding pressure mains leading to two Infiltrator drainfields for a home cluster; and three ATU pods feeding individual Infiltrator drainfields.

RESULTS

The Mort's Water Company team kept service disruption to the homes to a minimum. Each system was treated as an individual case. Maintaining gravity flows from the homes into the new wastewater treatment system often required changing the outflow of household discharges. The community was pleased with the commitment to do the job right, the clear communication about the scope of the project, and the final site cleanup.