



Project Profile...



General Filter, Ames IA

## Elmira Water Board Water Treatment Plant Dual Media Filtration System

### Facility Contacts:

Plant Manager: Bob Kurcoba (607)732-2277  
Maintenance Supervisor: Randy Liddick (607)732-2277  
Engineer: C&S Engineers, Inc. - Bob Duclos, P.E. (315)455-2000

### Project Summary:

In 1996, the Elmira Water Board commissioned its new treatment facility. The heart of the treatment process is the dual media filter system. The sand and anthracite media is cleaned with the MULTIWASH® simultaneous air and water backwash system. This ensures deep media cleaning with a minimal amount of backwash water. Less than *one percent* of treated water is used to clean the filters. Most of this is then blended with the raw water for recycle.

The operations staff is committed to optimizing plant performance. Extensive process monitoring and lab analysis minimize operations costs, while enhancing drinking water quality.

The original filtration building had been in continuous operation since the 1890's. The site is now on the AWWA list of historic places. With the new filtration equipment on-line, the Water Board is prepared for decades of reliable, safe, and great tasting drinking water.

### Plant Data:

- ↓ # 24-hour per day operation
- ↓ # Blended raw water source
- ↓ # Sedimentation prior to filtration
- ↓ # Continuous Treatment Optimization
- ↓ # Design Flow at 2.8 gpm/ft<sup>2</sup>:  
11,800 gpm (5.9 MGD)

### Equipment Components: US Filter/General Filter MULTIWASH

- ↓ # Two CentROL Filter Units
- ↓ # Total Eight Cells: 2,112 ft<sup>2</sup> filter area
- ↓ # Media: 12" Sand and 18" Anthracite
- ↓ # Nominal Filtration Rate: 2.8 gpm/ft<sup>2</sup>
- ↓ # Average Filtered Water Turbidity:  
less than 0.08 NTU
- ↓ # MULTIWASH Simultaneous  
Air and Water Backwash Process
- ↓ # Manual, Semi, and Automatic Backwash  
Control Modes
- ↓ # Average Filter Run: 64 hours
- ↓ # MULTICRETE Underdrain System