



**Design Engineer**

Poggemeyer Design Group, Inc.

**General Contractor**

Kirk Brothers Company, Inc.

**Electrical Contactor**

Brint Electric, Inc.

**Tertiary Filter  
Equipment Supplier**

Aqua-Aerobic Systems, Inc.

**Mayor**

John B. Quinn

**Municipal  
Administrator**

John Fawcett

**Board Members**

John Mekus

Ramona Cormier

Bill Culbertson

Joyce Kepke

Rick Schmidt

**President of Council/  
Third Ward**

Megan Newlove

**Director of Utilities**

Kevin M. Maynard

**Assistant Director  
of Utilities**

Paul G. Brock, P.E.

**Superintendent**

Douglas P. Clark

**Assistant  
Superintendent**

John R. Bella

The City of Bowling Green

**WATER POLLUTION  
CONTROL TERTIARY  
FILTER IMPROVEMENTS**



POGGEMEYER  
DESIGN GROUP

CORPORATE HEADQUARTERS  
1168 North Main Street  
Bowling Green, Ohio 43402  
419.352.7537  
www.poggemeyer.com

■ Total Project Cost.....\$2,900,700  
Loan obtained through the Ohio Water Pollution Control Loan Fund (WPCLF)

**A**s part of the City of Bowling Green's Combined Sewer Long Term Control Plan, the existing sand tertiary filtration system was upgraded from a peak capacity of 16MGD to 30MGD. As required by the City, the upgraded filtration system needed to fit within the footprint of the existing system, have the ability for sustained peak flow treatment with minimal backwashing and minimize the backwash volume tributary to the peak water pollution control facility flows. To accomplish these requirements, an innovative multiple cloth fabric tertiary filter media disk system was selected to replace the existing filtration system because of its compact footprint and ease of operation.

#### FILTRATION OPERATION

Following biological treatment, clarified effluent flows through the cloth media of the stationary hollow disks and filtrate exits through the hollow center collection tube. As solids accumulate on the surface of the cloth media, the water level rises within the individual filtration units. Once a predetermined level is reached, the disks rotate and the media surface is automatically vacuum backwashed clean.

#### TERTIARY FILTRATION DESIGN CRITERIA

- Peak Flow .....30 mgd
- Number of Units .....6
- Disks per Unit.....12
- Total Number of Disks .....72
- Surface Filter Area Per Disk .....53.8 sq. ft.
- Total Filter Surface Area .....3,873.6 sq. ft.
- Maximum Hydraulic Loading .....5.38 gpm/sq. ft.  
(All Units in Service)
- Maximum Hydraulic Loading .....6.45 gpm/sq. ft.  
(with one (1) Unit Out of Service)

