



## Glenbard WWTP: Cleaning Cycle Reduced by More Than 50 % by Headworks' MS™ Bar Screen

### Introduction

In late 2004, after evaluating a variety of options, Headworks Inc. was enlisted by the Glenbard Wastewater Treatment Plant in Illinois as the obvious choice to bring the Headworks portion of their facility up to date. This renovation was long over due considering that the old catenary type screens they had in place in 2004 had not been fully functioning since 1999.

### Challenge

The flow at the plant fluctuates from as little as 3 MGD to over 40 MGD as the plant handles water from both the sewer system and the storm water system. Often, the flow was in the 3 MGD range with a flow velocity of 0.5 ft/s. This low flow created a vast amount of sediment in the channel. The catenary screen was climbing above the sediment and simply left it to build up in the channel requiring manual removal.

### Design

Since the MS Bar Screen installation one year ago, the Glenbard staff has seen a significant reduction in debris in downstream processes. They have also noted improvements in the tertiary treatment process, specifically the influent manual screens upstream of the

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Customer: Glenbard Wastewater Authority  
Industry: Municipal

### KEY FACTS

- **Installed:** 2007
- **Two MS Bar Screens:** 3/16" (4.5 mm)
- **Flow Range:** 11,355 – 151,400 m<sup>3</sup>/day (3 – 40 MGD)
- **Spacing:** 4.8 mm (3/16 in)
- **Channel Depth:** 9.1 m (30 ft)
- **Bar Screen Width:** 1.8 (6 ft)

sand filters. Most notably, the cleaning cycle has been reduced by over half. As a result of this improvement and the minimal amount of maintenance required to be performed thus far, the operators are excited that the screen has performed above their expectations.

Erik Lanphier, the Glenbard Wastewater Authority Wastewater Manager, enthused that the MS Bar Screens are “a superb piece of equipment that has performed above our expectations! We have had some of the highest flow periods seen in 20 years and the Headworks screen performed flawlessly. Other than routine preventative maintenance, we have not had to touch the screen during the first year of operation. With the change from a Cantenary 3/8” course bar screen to the MS 3/16” fine bar screen we were concerned about the potential loading from our combined sanitary sewer causing blinding on the screening field. This has not been the case due to the two speed design and the control strategy that was recommended during design, followed by implementation upon startup. I tip my hat to the Headworks Mahr Bar Screen and have given many recommendations to other facilities regarding the performance, durability, and efficiency of this screen.”

The MS Bar Screen is able to cope effortlessly with the highly variable flow rates. Even after Hurricane Ike dropped 101 billion gallons of water

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- Erik Lanphier

*Regional Operations Manager at Northern Ireland Water*

on Cook County where Glenbard resides, they only required one MS screen to manage the deluge.

The most intriguing aspect of our equipment in the opinion of this client, as with many other clients, is the fact that Headworks has the experience and technology to provide a heavy-duty bar screen with very fine bar spacing. In addition to the advantages mentioned above of the MS Bar Screen, our unit is able to be installed in extremely deep channels with very low overhead. The channel at the Glenbard plant is almost 30 feet deep, not a particular challenge for Headworks and this robust screen: the meanest toughest screen on the market.



*One of the two Headworks MS Bar Screens installed at the Glenbard plant in Illinois*

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