



Greater Lawrence SD chooses Headworks[®] MS[®] Bar Screen Upgrade

Introduction

The Greater Lawrence Sanitation District is responsible for building, maintaining, and operating a system of sewage collection and disposal for over 130,000 people in five communities in Essex County. Established in 1977, the plant operates on the banks of the Merrimack River approximately 24 miles from Boston, in the northeastern part of Massachusetts.

In 2005, Greater Lawrence Sewage District (GLSD) was faced with a decision to replace an old catenary screening system that would be overwhelmed by a peak flow which would soon grow from 135 mgd to 165 mgd. GLSD and their consultant engineers evaluated several screen manufacturers, visited sites and interviewed operators to determine the best equipment for their plant. The Headworks MS[®] Bar Screens were chosen because of their sturdy stainless steel construction that required minimal maintenance, their ability to screen large volumes of waste water, and a finer screen field. Previously, GLSD operators were having problems with solids getting through their 1" screen field, and were able to incorporate a 3/8" field with the MS[®]. The most compelling reason for purchasing the MS[®] Bar Screen, however, was that they met the flow requirements with a smaller screen field yet would occupy the same footprint as the previous equipment. No demolition of the existing concrete channels would have to be undertaken for installation in the sewage treatment plant.

Customer: GLSD

KEY FACTS

- Bar Spacing: 3/8"
- Channel Width: 5'
- Max MGD: 83

Solution

Each of the three screens Headworks® provided has an overall length of 17 feet, 3.38 inches. The screen field length is 8.25 feet long and 5 feet wide. It weighs a whopping 4,628 pounds and is installed at an angle of 75 degrees. The channel depth is 8.3 feet and 6 feet wide. The water depth is 5.5 deep and 5.6 feet wide. The MS Bar Screens take in waste water from the 10 miles of collector interceptors along the Merrimack River. The screenings are discharged into the chute of a Transpactor for dewatering and removal. This robust unit has been running for over three years, and the GLSD is very pleased with its performance and minimal maintenance. Richard Weare, Capital Projects Manager at GLSD said of the equipment: "The MS® screens have provided all of the services and requirements that we expected." After over 4300 hours, the screens have been doing their job, requiring only routine maintenance.

