Headworks® INTERNATIONAL

CASE STUDY: **Barelas Pump Station** ALBUQUERQUE, NEW MEXICO, USA

Background

The Barelas Pump Station is part of an MS4 (a Municipal Separate Storm Sewer System; just try saying that 5 times fast!) designed for collecting and conveying storm water. It is not a combined sewer, nor is it part of a publicly owned treatment works, which makes it quite unique on the Headworks® Inc. installation list.

During the summer of 2006, hundred-year storms overwhelmed the Barelas Pump Station, contributing to flooding that displaced dozens of residents. The City of Albuquerque issued an emergency contract to Molzen-Corbin & Associates for pump station modifications. Within 8 months, cost-effective improvements were designed and completed – most notably an innovative bar screen application that represented the first of its kind in the southwest, and one of only a handful in the United States.

Built in 1961, the Barelas Pump Station deals solely with storm water; it is not in constant use and is very much a seasonal screen. It is the largest storm water pump station in Albuquerque, with a capacity of 346 MGD. Accumulated trash and other debris clogged the screen during heavy rainfall, preventing flow to the pumps which caused flooding upstream from the pump station. In addition, a hydraulic analysis of the station indicated that the influent channel should be widened to maximize the volume of flow to the pumps.

Customer: Barelas Pump Station
Industry: Water Reclamation

QUALITY THAT NEVER QUITS™

Why Barelas PS chose Headworks

The wide channel and high flows were a challenge which not all manufacturers would be able to handle, but in April 2007, Headworks delivered and started up one of the widest Bar Screens in that region. At 12 feet wide with 2 inch bar spacing, this is an extremely sturdy and robust unit.

Solution

Our screen was chosen for its operational efficiency, making it ideal for handling large volumes of storm water. The unique features of the self-cleaning continuously cycling rake assembly made the clear choice. Pioneering this technology with storm water applications allows for the faster cleaning of more water at a time, increasing efficiency without increasing operating costs. The screen can also operate at a faster speed to remove debris during very large storms. Emergency bypass doors allow water to flow past the bar screen in the event of a power failure. This innovative patented design feature prevents upstream flooding if the bar screen were to fail to operate.