



Tacoma Washington's Central Wastewater Treatment Plant Happy for Over Eight Years

Introduction

In The City of Tacoma's Central Wastewater Treatment Plant can treat in excess of 130 million gallons of wastewater per day. The plant utilizes one of the most technologically advanced treatment processes in the United States. The process utilizes virtually all of the treated biosolid material the plant creates, recycling it into award-winning Soil Mixes and Potting Soils.

In early 2006, the City of Tacoma selected us to upgrade the Headworks area of the Central Wastewater Treatment Plant by installing new Bar Screens and the screening handling system during Phase III of the project. The City was replacing its existing Climber Type Bar Screens which required a significant amount of maintenance and were overwhelmed during major flow events.

Introduction

The three Headworks Bar Screens operate in 7' 5" wide channels with maximum design water depths up to 9' 5" and 1/4" bar spacing. The Bar Screens then discharged into a single Sluice Trough where the Screenings enter one of two Headworks Screwfactories for washing and compaction before being discharged into the plant dumpster.

Customer: City of Tacoma
Industry: Municipal

KEY FACTS

- Three Headworks MS® Bar Screens*
- **Design Flow:** 5.75 m³/s (121.42 MGD)
 - **Channel:** 2.29 m wide (7.50 ft)
6.25 m deep (20.50 ft)
 - **Screen Size:** 9.02 m long (29.58 ft)
2.24 m wide (7.34 ft)
 - **Bar Spacing:** 6.35 mm (0.25 in)
 - **Water Depth:** 2.90 m (9.50 ft)
 - **Discharge Level:** 1.52 m (5.00 ft)

Outcome

Mr. Jeffrey L. McVicker, Wastewater Treatment Plant Maintenance Supervisor, recently stopped by the Headworks Booth at WEFTEC 2014 and reported that the Screens are going strong. Mr. McVicker has made some process enhancements to the plant by replacing the Sluice Trough with a twin Shaftless Screw Conveyor and has shared his improvements with Headworks. We appreciate feedback from all of our customers and welcome any ideas for improvement to our products, processes and systems. Mr. McVicker's feedback was very much appreciated. He is now responsible for

upgrading the electronics, controls and automation for the entire facility.

About the Headworks Bar Screens and Screwpacktors, Mr. McVicker states, "These screens and compactors have worked great for us. We have cut our maintenance costs by changing from the climber Bar Screens to the Headworks Bar Screens; there are far less things to fail and they are more reliable. Our screens take flows from 20 MGD to 150 MGD and never have problems with the flow, or rocks and debris coming into the plant. We have three Bar Screens and two shaftless screws that take the product from the screens to two Headworks compactors. We can switch from screen, or screw,

or compactor from our control room; or if one compactors starts to fill too much it will automatically switch to the other, or if we get too many rocks we can move a dumpster under the twin shaftless screws."

The City of Tacoma's choice of selecting Headworks' Bar Screen and screening handling equipment has created a Headworks system for Tacoma Central Wastewater Treatment Plant which has increased operational efficiencies even during extremely high flows while simultaneously reducing maintenance costs. It doesn't get much better than that.



Installation of three Headworks MS® Bar Screens at the Wastewater Treatment Plant in Tacoma, WA

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*- Mr. Jeffrey L. McVicker
Wastewater Treatment Plant
Maintenance Supervisor*

