

October 2011**CASE STUDY - Wastewater Treatment Plant Complete Flow Bypass**

Aquatech offers environmentally secure temporary bypass pumping solutions for wastewater treatment plants: design, installation, operation, maintenance, sanitization and removal to fully address your project scope and overcome project specific issues and environmental challenges. The following case study is brief illustration of how Aquatech manages and ensures an efficient operation for wastewater treatment plant bypass.

Job Description

At the Galt Wastewater Treatment Plant a full plant bypass of the incoming raw sewage was required for the purposes of Gate Valve replacement and regular maintenance. Aquatech engineering staff needed to find a way to temporarily bypass the maximum incoming flow rate of 12,000 USgpm. This maximum incoming flow was required to be diverted to Plant A and Plant B clarifiers. Plant A Clarifier has one large clarifier that can handle a maximum 6,000 USgpm. Plant B Clarifier on the other hand has four smaller clarifiers with a maximum flow handling capacity of 1,500 USgpm each. Furthermore, the incoming flow channel is an over-ground channel with 12ft high walls.

**Aquatech Solution:**

1. Siphon suction (flooded suction) kit with 3-wafy ball valve was installed on each pump to regulate compressor air flow to the venturi. Thus, the suction could be accomplished up, over and down to the pump without destroying the pump compressors and insures

performance of suction capability when required.



2. Four pumps, two 12" and two 6" pumps (upsized to 8" suction and discharge) were sized for this application. One of the 12" and one of the 6" pumps were designated to divert flow to Plant A Clarifier and the same to Plant B Clarifier. For Plant B pumps, each 12" discharge pipe had to be split into two equal size pipes, also each of the two equal size pipes had to be further split into another two equal size pipes, resulting in a single discharge pipe being split into four smaller discharge lines. Each of the four smaller pipes discharged into a separate clarifier. For example, one 12" pipe was split into two 8" pipes and each 8" pipe was split into two 6" pipes.



Aquatech provides the proper solution and offers a wide range of equipment and systems for all stages of wastewater treatment bypass. For more information on temporary wastewater treatment plant bypass, please contact one of our representatives.

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