

Hands on Approach Increases Brooklyn Park Plant Capacity

The Brooklyn Park Water Treatment Plant was having difficulty in meeting its design capacity of 10 million gallons per day (MGD). The plant was designed to remove iron and manganese from the water by the manganese greensand filtration process. Progressive Consulting Engineers, Inc. (PCE) was selected to evaluate the operation of the plant and to work with the operating staff to identify problem areas.

The plant's chemical process, filtration, media, backwash system, recycle system, piping, valves, hydraulics, controls, and instrumentation were reviewed. Visual inspection, sieve analysis, and acid tests were conducted to determine the condition of the media.



Brooklyn Park Water Treatment Plant

An analysis of plant capacity included review of filter out-put and the quantity of backwash water. Filter backwash rates were measured to determine if the bed was fluidizing at the designed rates. The reasons for flooding of the washwater trough, which resulted in filter upset, were investigated.

The hands on approach of PCE staff resulted in developing clear recommendations for increasing the plant capacity. Plans and specifications were prepared.

The recommended improvements were implemented at a cost of approximately \$200,000, resulting in doubling filter run lengths and a plant capacity, which exceeded the 10 MGD design capacity.

Client: City of Brooklyn Park
Client Contact: Jon Thiel, Director O & M
Construction Year: 1995-1997
Cost: \$200,000



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