

Client
City of Boca Raton

Scope of Services
Continuous monitoring of membrane softening process operating data and preparation of quarterly reports, including recommendations for improvements in operating practices and data collection.

Contact
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Start Date
01/2008

Completion Date
Ongoing

Key MBC Staff
Frank A. Brinson, P.E.
Andrew Barba, P.E.

Key Features
Project includes continuous monitoring of operating data and recommendations for process optimization of the City's 40 mgd membrane softening process.

Benefit to City
Save the City \$1 million annually through the elimination of chemical pretreatment.

Glades Road Water Treatment Plant Continuing Process Technical Support Services Boca Raton, Florida



Background

The City of Boca Raton owns and operates a 40 million gallon per day (mgd) membrane softening plant. At the time this plant was placed into service (2005), it was the largest membrane softening plant in operation in the world. MBC's principal engineer, Frank A. Brinson, P.E., served as project manager, during design and construction of the plant. Taking advantage of Mr. Brinson's intimate knowledge of the facility and process design, MBC has been providing continuing process technical expert services since January 2008. MBC's services include quarterly review of the membrane process performance data, plant operating records, wellfield operating records, operating practices, and preparation of quarterly reports on the findings of MBC's review, including recommendations for improvements in operating practices and data collection for optimization of the treatment process and improvements in plant efficiency and reliability.

MBC's ongoing services have assisted the City in successfully operating the NF process with no chemical pretreatment (acid and antiscalant) resulting in an annual savings to the City of over \$1 million.

Scope of Service

The scope of MBC's services on the project included the following:

- Quarterly visits to the plant to observe operation and equipment, meet with plant operating staff to discuss general plant operation and specific issues, and review of operating records and membrane performance data.
- Preparation of Quarterly Operations Evaluation Reports from data gathered during plant visit.
- An evaluation of wellfield water production from the three different wellfields and how the flows are balanced between lime softening and membrane softening plants.