

Client
City of Pompano Beach

Scope of Services
Owner's representative on a manufacturer-led design-build project. Services included design development, review of design documents, review of shop drawings and other construction-phase submittals, and project close-out.

Contact
Mr. A. Randolph Brown
Utilities Director
City of Pompano Beach
1205 NE 5th Avenue
Pompano Beach, FL 33060
954 545.7043
randolph.brown@copbfl.com

Start Date
05/2011

Completion Date
07/2012

Construction Cost
\$244,500

Key MBC Staff
Frank Brinson, P.E.
Eelhard Meneses, E.I.

Key Features
Improvements included modifications to the backwash system for the existing DynaSand® filters to improve backwashing operations and improve the efficiency of the filters.

Reclaimed Water Filter System Upgrades Pompano Beach, Florida



Background

The City of Pompano Beach uses secondary treated wastewater from the Broward County wastewater treatment plant as a source for its reclaimed water treatment plant (RWTP). The system is used to irrigate Pompano Beach Municipal Golf Course, Pompano Community Park, and greenways in the City. In 2004 the City was awarded American Water Works Association (AWWA) Best in Class for Reuse Efficiency for a large utility. This award recognizes outstanding achievements in water efficiency, water supply and resource development initiative throughout Florida.

The reclaimed water facility includes two banks of automatic backwash, upflow, granular media filters (DynaSand® filters). The North Plant contains eight filter cells, and the South Plant contains sixteen filter cells. From June 2010 to February 2011, the City conducted a full-scale demonstration study of proprietary control upgrades to the filters at the North Plant. This demonstration study indicated that proposed upgrades would result in a substantial reduction in operating costs for the overall filter system. Based on the results of the demonstration study, the City elected to implement the proposed filter upgrades permanently on both banks of filters.

The Project

MBC was retained to act as the Owner's representative to assist in implementation of the filter upgrades as a manufacturer-lead design-build project. MBC's scope of services included assistance in design development, assistance in negotiations of the design-build scope of work and agreement terms and conditions, review of design documents, review of shop drawings, project schedules, and applications for payment, periodic construction observation, project meetings, start-up assistance, Operation and Maintenance Manual review, and final completion inspections.



The scope of improvements to the filters included:

- Replacement of Central Control Panels for the filter banks at the North and South plants.
- Replacement of filter cell air control panels on all filters.
- Replacement of filter backwash airlifts on all filters.
- Replacement of filter backwash valves on all filters.
- Installation of new instrumentation, controls, and backwash control logic programming on all filters.
- Miscellaneous associated electrical improvements.

Construction of the project was performed by Parkson Corporation. Construction was substantially complete in June 2012. There were no change orders.

