

Client

Broward County Water and
Wastewater Services
MBC Subconsultant to Prime
Professional

Scope of Services

MBC's scope of services
includes permitting,
construction sequencing,
start-up, and commissioning
plan.

Contact

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Start Date

12/2014

Completion Date

Ongoing
Estimated May 2019

Construction Cost

TBD

Key MBC Staff

Audra I. McCafferty, P.E.
Frank A. Brinson, P.E.
Andrew Barba, E.I.

Key Features

Project consisted of a 16.0
million gallon per day (mgd)
expansion to the reclaimed
water treatment plant,
including expansions to the
filter feed pumping system,
filters, chlorine contact basins,
on-site and off-site reclaimed
water distribution pumping
system, chemical storage and
feed systems, and associated
sitework, structural, electrical,
instrumentation and controls
improvements.

Broward County North Regional Wastewater Treatment Plant Upgrade

Broward County Water and Wastewater Services



Background

The North Regional Wastewater Treatment Plant (NRWWTP) utilizes a 54-inch diameter ocean outfall and Class I deep injection wells (DIW) as primary disposal methods for the treated effluent. Legislation passed by the State of Florida, known as the "Ocean Outfall Rule", eliminates the use of ocean outfalls for effluent disposal after 2025. The legislation also requires a wastewater reclamation program with a capacity of 60 percent of the treatment facility's baseline flow. For the NRWWTP this equates to a reclaimed water production capacity of 26 million gallon per day (mgd).

The NRWWTP currently operates reclaimed water facilities rated at 10 mgd. Of this, 4.75 mgd is committed to existing uses. Broward County Water and Wastewater Services (BCWWS) has developed a plan to allocate a remaining 20 mgd by supplying public-access reclaimed water to large users in northern Broward County and is currently party to a joint agreement with Palm Beach County to supply public-access reclaimed water to Palm Beach County.

The Project

Improvements to the BCWWS NRWTP under this project include the following:

- Expansion of the existing filter feed pump station through the addition of seven new horizontal split case feed pumps and a strainer system.
- Expansion of the existing filter and chlorine contact system through the construction of two new banks of continuous backwash, upflow, granular media filters and two new chlorine contact basins (each train 8 mgd in capacity).
- Construction of new polymer and sodium hypochlorite storage and feed systems.
- Expansion of the existing reclaimed water distribution pumping system through the addition of six new horizontal split case distribution service pumps.
- Construction of a new Electrical Distribution Building including new switchgear, variable frequency drives, and two new diesel engine driven backup power generators.
- Sitework, yard piping, yard electrical, instrumentation, and controls improvements associated with the reclaimed water system expansion.

MBC was responsible for all permitting services and development of a construction sequencing plan and technical specifications and process start-up and commissioning plan.

