



BREAKERS HOTEL & RESORT, PALM BEACH - GOLF COURSE IRRIGATION

Location:	Palm Beach, Florida	Capacity:	1,526 m3/d
Engineer:	Miller Engineering	Feed Source:	Floridan Aquifer
Market:	Private Resort	Feed Quality:	5,000 mg/l TDS
Membrane:	Hydranautics	Start-Up:	2001

Project Highlights: In 2000, the world-renowned Breakers Hotel & Resort implemented a complete renovation of the resort's golf courses. As part of this project, new sources of irrigation were considered, especially for the new fairways and greens. With the municipal supply limited by regulations and costs, insufficient rainwater quantities and the ground water too saline; it was determined the best solution to be the removal of most dissolved salts from the ground water by means of a Hydropro Reverse Osmosis System.

The ground water source is the Floridan Aquifer which has an average of 5,000 mg/l TDS in the Palm Beach County area. Water is pumped from this source via an Artesian Well, and delivered to the Hydropro RO unit. The permeate water from the RO unit, which is less than 200 mg/l TDS, is directed to a holding pond on the golf course and is used by the central irrigation system as required. Level sensing devices, operating on the level of the holding pond, provide the start/stop control of the RO system. The RO system is controlled by a PLC and is monitored by a CPU located in a separate office area. Remote monitoring is also available to the engineering and technical staff of Hydropro.

The Breakers golf course has since reopened and the fairways and greens are particularly beautiful and healthy due to the exceptional efforts of grounds management and crew, with a little help from a Hydropro RO system.