



### **GULFSTREAM PARK RACE TRACK - DESIGN/BUILD**

Location:	Hallandale Beach, Florida	Capacity:	500,000 GPD + Blend
Engineer:	Miller Engineering	Feed Source:	Floridan Aquifer
Market:	Irrigation	Feed Quality:	5,000 mg/l TDS (20°C)
Membrane:	Toray	Start-Up:	2005

**Project Highlights:** In 2004, Gulfstream Race Track installed a new state-of-the-art dirt and turf course. The Track enlisted Hydropro, Inc. teamed with Miller Engineering to supply a new brackish water system utilizing reverse osmosis membrane technology. The system supplies water for irrigation.

The brackish water feed source for this project is the Floridan Aquifer which averages 5,000 mg/l TDS in the Broward/Dade County areas. This system was designed to replace the Track's existing shallow well system that had been affected by saltwater intrusion. City water was and is available as a backup to this RO system -- yet, it is now apparent that the reliability of the RO system will preclude this backup use.

The Design/Build elements included by Hydropro include well head and piping, VFD controls on the well pumps, multi-port pressure vessels and an energy recovery Turbocharger<sup>(TM)</sup>. The RO plant is extremely quiet and has a low operating pressure increasing the energy efficiency of the system.

Hydropro installed and started-up the entire system and as well provided the control logic system. As a pretreatment system, this facility includes a modified version of Hydropro's *Filterific*<sup>(TM)</sup> Tubular Filter system serving as sand screens for reduction of solids prior to entering the micron filters and the membranes.