



### CORKSCREW NANOFILTRATION W.T.P. EXPANSIONS

Location:	Estero, Florida	Membrane:	Dow/Filmtec NF90
Engineer:	Montgomery Watson	Feed Source:	Shallow Wells
Market:	Municipal	Feed Quality:	550 mg/l TDS
Start-Up:	Nov-94 - 1st Expansion	Start-Up:	Jan-97 - 2nd Expansion
Capacity:	500,000 GPD 1st Exp.	Capacity:	800,000 GPD 2nd Exp.

**Project Highlights:** Gulf Utility Corporation owns and operates the Corkscrew WTP on the west coast of Florida. The existing plant consisted of one 500,000 GPD MS train with Dow NF70's. The plant feed water was very low in TDS. As a result, the main objective of the units is to reduce iron content.

The plant is controlled by an Allen Bradley PLC 5/25 with Control View as the SCADA system. Gulf Utility's engineer (Montgomery Watson), designed the first and second expansions plus the upgrade to the original PLC control system. The first expansion called for one additional 500,000 GPD MS train and upgrading of the PLC software and the SCADA controls software to the latest versions. Included in this phase was the programming to control both trains. The second expansion called for an additional train of 800,000 GPD.

Hydropro was responsible for assisting in the design and installation of the 2nd 500,000 GPD Nanofiltration train and the 3rd 800,000 GPD Nanofiltration train as well as complete system supply. This plant was among the first to run Dow/Filmtec NF90's.