



Lake Worth, Florida Reverse Osmosis Water Treatment Plan Expansion

PROJECT PROFILE CONSTRUCTION

CLIENT
City of Lake Worth

REVERSE OSMOSIS WATER TREATMENT PLANT CONSTRUCTION

Lake Worth, FL

SITUATION:

In efforts to keep up with the growing water supply needs and safe drinking water for the residents of the City of Lake Worth FL, this new RO WTP was designed and constructed to meet this need well into the future.

In 2001, Lake Worth completed a Safe Drinking Water Act Planning Study which identified short and long-term improvements necessary to maintain and further expand the treatment capabilities and production capacity of Lake Worth's water treatment plant. The study concluded that an additional water treatment process, such as reverse osmosis (RO), working with the existing lime-softening system, would facilitate compliance with future Safe Drinking Water Act (SDWA) requirements. The high quality water produced from an RO process could be blended with the existing lime-softened water to improve overall quality and meet the SDWA requirements.

SOLUTION:

Construction of a new 26,000 square foot Reverse Osmosis Membrane Water Treatment Building. This project increased total plant capacity to 4.5.

SERVICES EMPLOYED:

- + Three (3) reverse osmosis skids with a minimum permeate capacity of 1.5 MGD each
- + Four (4) cartridge filters
- + Three (3) vertical turbine pumps
- + Extensive stainless steel process piping
- + New chemical storage and feed tanks and injection systems
- + The treated water is run through a new Degasifier and Odor Control System before being mixed in the Clearwell with the treated water from the existing lime softening plant outflow.
- + Other features included replacement of the existing line scrubber system, replacement of the water tower altitude valve, rehabilitation of the existing Clearwell concrete and improvements to the site paving and access sidewalks.

