

# CITY OF LAKE WORTH REVERSE OSMOSIS WTP EXPANSION LAKE WORTH, FLORIDA



## Project Description

This \$17 million project included expansion and modifications to the existing Lake Worth Water Treatment Plant. Approximately \$2.5 million ARRA Stimulus funds were included in the project funding. This project increased total plant capacity to 4.5 MGD. The project scope included a new 26,000 square foot Reverse Osmosis Membrane Water Treatment Building. The treatment train inside the new RO building has three (3) reverse osmosis skids with a minimum permeate capacity of 1.5 MGD each, four (4) cartridge filters, three (3) vertical turbine cans and membrane pumps (400 HP/each with variable frequency drives (VFDs)), two (2) concentrate pumps (60 HP/each), and extensive stainless steel process piping. The RO Building also houses 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. Via owner requested change order, we changed out and re-installed a new lime slacker system. Other features included replacement of the existing lime scrubber system, replacement of the water tower altitude valve, rehabilitation of the existing clearwell concrete and improvements to the site paving and access sidewalks.

## At a Glance

**Contract Amount:**  
\$17.2 M

**Notice to Proceed:**  
October 1, 2009

**Completion Date:**  
December 28, 2011

**MGD:**  
4.5

**Owner:**  
City of Lake Worth

**Engineer:**  
Mock, Roos & Associates