

EL SEGUNDO WATER RECYCLING PLANT PHASE IV EXPANSION

West Basin Municipal Water District | El Segundo, California



HDR, as part of an at-risk joint venture with Filanc Construction, expanded the water recycling plant capabilities in its Barrier Water Treatment System and Title 22 Treatment System for West Basin Municipal Water District at its El Segundo Recycling Facility in California. The joint venture team completed this by designing and constructing new facilities at the existing plant. These new facilities increased the capacity of Barrier water to 12.5 mgd total capacity and increased the capacity of Title 22 water to 40 mgd total through this Phase IV Expansion. The source water for this process is secondary effluent from the City of Los Angeles' Hyperion Treatment Plant. The upgrades/expansion to the Barrier Water Treatment System included cartridge filters, chemical addition, microfiltration, reverse osmosis, ultraviolet irradiation, and product water pump station.

The expansion of the Title 22 Treatment System included conversion of an existing clarifier and existing filters, an additional product water storage tank and pump station, and modifications to the existing disinfection system.

New chemical facilities included a lime saturator, hydrogen peroxide feed system and upgrades to existing chemical systems. The project involved upgrade of the existing solid handling system consisting of the addition of high rate clarifiers for backwash water treatment, and upgrade of the existing equalization basins and plate-and-

frame presses. The existing electrical supply, instrumentation and control systems were upgraded as part of this project. In addition, the new facilities required yard piping, and the demolition and removal of abandoned facilities. HDR worked with Filanc to ensure that current operations continued during the Phase IV Expansion.



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