



A Lifecycle Performance Company

A member of The Amplio Group

Case Study

Oasis Water Corp., California

Arsenic removal via coagulation filtration at drinking water system

Facility Type:	Municipal Water Treatment (300 GPD)
Problem:	High levels of As
Solution:	Coagulation filtration with operating services
Results:	As removal to <6 µg/l

The Challenge

Oasis Water Corp. is a new, privately owned water utility created serving the residents of Desert Oasis Mobile Home Park in Thermal, Calif. Desert Oasis is a large community located on the Torres-Martinez Indian Reservation in Riverside County that serves primarily migrant farm workers. Home to the Torres-Martinez Desert Cahuilla Indian tribe, the Reservation covers 24,000 acres in the Coachella Valley region near the Riverside-San Bernardino metro area and the Salton Sea. Growth of mobile home parks on the reservation burgeoned in the late 1990s. In recent years, the Bureau of Indian Affairs (BIA), U.S. Environmental Protection Agency (EPA) and Indian Health Services have begun to scrutinize the parks due to a number of water quality, sewage handling and solid waste issues.

Desert Oasis Mobile Home Park owners were eager to better provide for residents' welfare but needed to find ways to achieve these goals in an orderly and economically feasible manner.

The Envirogen Solution

Envirogen Technologies, Inc. (Envirogen) offered Oasis Water Corp. a dependable, economical water treatment system that specifically addresses its needs, with the additional advantage of being backed by a service guarantee. The Envirogen coagulation filtration system, currently under construction, uses a proprietary media, which allows for higher throughput in a small footprint (the entire system covers a 10 x 20 foot area). It will remove source contaminants, primarily arsenic, to provide potable water to the mobile home park's 360 connections. While the well being treated is currently producing 260 gallons per minute (gpm), the system is sized for 300 gpm to handle fluctuating demand from the park's variable population, which is dependent on farm harvest schedules in the agriculturally rich region.

In addition, the Envirogen system is designed for 99.5% water recovery by re-injecting most of its backwash water for further treatment, minimizing the loss of available water to the waste stream. The system meets potable water standards in the treatment phase, eliminating the need for post-chlorination.

Under the agreement with Oasis Water Corp., Envirogen is amortizing the system purchase over a five-year period, during which time the Company will provide technical support, routine and preventive maintenance, process chemicals, weekly service calls, 24/7 emergency response, and assistance with permitting and other interactions with regulatory agencies. These agencies include the BIA, EPA, Indian Health Services and the Rural Community Assistance Corporation, all of which have closely monitored the project's progress. The contract guarantees treatment of arsenic not to exceed 6 micrograms per liter (µg/L) at full capacity flow. After fulfillment of the five-year agreement, Oasis Water Corp. will own the system and have the option for an ongoing services agreement with Envirogen.