

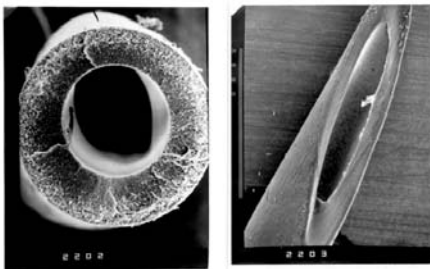
# Hollister/Sunnyslope Water Treatment Agency

## LESSALT Water Treatment Plant



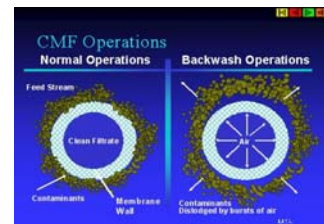
The 3-MGD LESSALT Surface Water Treatment Plant is a joint venture between the City of Hollister and the Sunnyslope County Water District and began operating January 2003. The LESSALT Plant treats surface water from the Central Valley Project-San Felipe Division for distribution to the Sunnyslope County Water District and the City of Hollister. The San Benito County Water District is the USBR contract agency for San Felipe water.

San Felipe water originates in northern California through San Luis Reservoir. Water flows from the Hollister Conduit to Pump Station 9L. Two 500 micron Feed Water Strainers filter raw feed water to remove large particles.



Continuous Microfiltration is a filtration process that uses a membrane filter to remove suspended particles. Raw water enters three US Filter Memcor Continuous Micro Filtration (CMF) units. Raw water flows through 288 Memcor modules, each module contains 20,000 fibers. Water passes from the outer surface of the fiber (Shell Side) to the hollow inner core (Lumen). As water passes through the porous wall of the fibers, suspended matter remains on the shell side. This filtration process removes solids larger than approximately 0.2 microns (typically bacteria are larger than 1 micron). As deposits build up on the fiber shell, filtration flow resistance increases and the membrane must be backwashed to restore flow performance.

A backwash operation cycle for each of the three CMF units occurs every 30 to 45 minutes. At the beginning of the Backwash cycle, water flow to the CMF unit is interrupted. Compressed air with 90 psi is forced into the Lumen side of the membrane to rapidly expand the fibers and force trapped solids away from the outer shell of the membrane. These solids are carried away from the modules by “sweep water”.



A small amount of chlorine is added to the treated water as a disinfectant through an underground pipeline contact chamber. Small quantities of caustic soda is injected for pH adjustment. Treated water is then fed directly to Sunnyslope County Water District and the City of Hollister water distribution systems.

Supporting systems include SCADA operating system, temperature, pressure, turbidity monitoring, chemical dosing, control panels, air compressors, instruments, and other related equipment. The majority of this equipment is used to maintain optimal CMF unit operation and performance.



The nature of the U S Filter Memcor CMF system is such that filtrate quality is consistent. This is to say that the millionth gallon of filtrate will be as well filtered as the first gallon of filtrate to pass through the CMFs media.