



MEMCOR® MemPulse® Membrane Bioreactor – Benefitting Healdsburg for the Long Haul

The challenge

The City of Healdsburg, California is nestled amongst the vineyards of Sonoma County where Chardonnay, Cabernet Sauvignon, and Pinot Noir varietals are grown for world famous Sonoma wines. In 2004, the US EPA required strict effluent limits that made their lagoon treatment system obsolete. A desire to procure a system that is both reliable and produces a high-quality effluent suitable for irrigation at local wineries led to a technology selection process and competitive procurement bid for a membrane bioreactor (MBR) system.

The solution

In a competitive bid process, DuPont was selected as the supplier for the membrane process. The City decided to participate in beta testing for the new MemPulse® MBR process and the first tank was started up in 2008. By 2009, all five tanks were operating at the plant with MemPulse®.

The benefits

The Healdsburg Wastewater Treatment Plant has produced effluent that consistently meets Title 22 standards for non-potable reuse for over 12 years. Even during the bi-annual “crush” season where organic waste spikes up to 2,000 ppm of COD, the plant produces high-quality effluent.

Since the upgrade to MemPulse®, the membrane system has not required any in-tank maintenance, compared to competitive systems that require annual or semi-annual removal for slack adjustment and cleaning. The MemPulse® system, along with our monolithic PVDF hollow fiber membrane, provides consistent solids removal and eliminates the need for operator interventions.

Along with these benefits, the membranes have lasted over 10 years in operation with some membrane tanks currently at 12 years of membrane life.

Fast Facts

Country: United States

Technology: Membrane Bioreactor

Product: MEMCOR® MemPulse®

End-user: City of Healdsburg, CA

Application: Wastewater

Total # of Modules: 640

Plant capacity: 15.1 MLD and 4 MGD

Commissioning: 2008

Feed water type: municipal wastewater with light industrial

Product water quality: <0.2 NTU turbidity (CA Title 22 standard)

Temperature range: 14-24 °C

Pretreatment: coarse/fine screening; conventional MLE with fine-bubble aeration

10+ years Operating membranes without replacement, demonstrating consistent performance and durability.



Water Solutions

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