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# AVILA BEACH CSD

50,000 GPD MEMPAC™ - M50  
Avila Beach, CA



## PROJECT OVERVIEW

Cloacina designed and built a 50,000 Gallon Per Day (GPD) MEMPAC-M50, package membrane bioreactor with fully-integrated controls including remote monitoring and alarming for the Avila Beach Communities Service District (ABCSD).

The location of the wastewater treatment facility is in close proximity to several public areas including a walking trail, golf course and downtown shopping area. To minimize the disturbance to residential neighbors, Cloacina incorporated a sound-attenuated room to house the process blowers.

The new membrane bioreactor will provide the District reliability and redundancy for their treatment system and a much higher quality effluent. The District is optimistic that the higher quality effluent will lead to recycled water use opportunities on the nearby golf course, parks and other green spaces.



## PROJECT TEAM



**CLIENT**  
BRAD HAGEMANN  
AVILA BEACH CSD PRINCIPAL



**PROJECT ENGINEER**  
BRYAN CHILDRESS  
THE WALLACE GROUP



**PROJECT CONTRACTOR**  
CHARLIE HARTZELL  
HARTZELL GENERAL  
ENGINEERING CONTRACTORS



**CONSTRUCTION MANAGER**  
MATT SCHOLFIELD  
CANNON



**PLANT OPERATOR**  
SHAWN POWELL  
FLUID RESOURCE MANAGEMENT

# DESIGN PARAMETERS

MODEL SUPPLIED: **MEMPAC-M50**

## INFLUENT PARAMETERS

<b>AVERAGE DAILY FLOW</b>	50,000 GPD
<b>BIOCHEMICAL OXYGEN DEMAND</b>	674 MG/L
<b>TOTAL SUSPENDED SOLIDS</b>	481 MG/L
<b>INFLUENT TYPE</b>	MUNICIPAL

## EFFLUENT QUALITY

<b>BIOCHEMICAL OXYGEN DEMAND</b>	< 10 MG/L
<b>TOTAL SUSPENDED SOLIDS</b>	< 10 MG/L



## CLOACINA SUPPLIED THE FOLLOWING FOR THIS PROJECT:

**EQUIPMENT:** MEMPAC-M50

**HEADWORKS:** Two Or-Tech micro bar screens and an integrated washer compactor

**SECONDARY TREATMENT/ACTIVATED SLUDGE:** Sludge holding tank

**CONTROLS:** Allen Bradley PLC's and drives

**SLUDGE HANDLING:** 23,000 gallon stainless steel cylindrical tank

**DISINFECTION:** Utilizes the existing chlorine contact chamber