

Santa Ana-Delhi Channel Diversion

The Santa Ana-Delhi Channel Diversion is a water quality project developed with the objective of eliminating dry weather flow and floating debris in the Santa Ana Delhi Channel in California. The main challenge of this project was to create an effective system to reduce pollutant loads discharged to the Upper Newport Bay, meeting MS4 Total Maximum Daily Load (TMDL) requirements and compliance with the California State Water Resources Control Board (CASWRCB) trash amendment program. The CASWRCB program states that all trash 5mm or greater is removed from waterways.

A PumpGuard system was installed in the channel and plays an important role in capturing trash and debris. The system was built of a stainless-steel structure with twelve 30"x 36" nets - four columns of three nets each. Underneath the nets, the lower 3'- 6" of the PumpGuard has static screens to stop sediment from migrating downstream. The system was designed to handle 450 cfs and, in extreme weather events, it collapses to 1/2 of the operating height through the use of a float to provide hydraulic relief, reducing upstream surcharge during floods.



Project Specifications

Product: PumpGuard

Number of nets: 12

Flow Rate: 450 CFS

