CASE STUDY
STORMWATER PRETREATMENT

LOS CERRITOS CHANNEL SUB-BASIN 4 STORMWATER CAPTURE FACILITY
Long Beach Airport, California, May 2018

PROJECT OWNERS: Cities of Signal Hill and Long Beach, California
ARCHITECT/ENGINEER: Tetra Tech Inc. and GHD Inc.
CONTRACTOR: Mike Bubalo Construction Company
PRODUCTS: Jensen Deflective Separator (JDS) Hydrodynamic Separator, Flow Splitting Vault, 16-Foot Diameter Precast Concrete Structure

CASE SUMMARY
Dry weather runoff and first flush stormwater flows pollute a Southern California watershed. Affected cities collaborate on a comprehensive stormwater management solution provided by Jensen Stormwater Systems.

CHALLENGES
The 17,771-acre Los Cerritos Channel Freshwater Watershed (map left) in Southern California showed exceedances of the total maximum daily load (TMDL) limits established by the US Environmental Protection Agency (EPA) for total suspended solids (TSS) and several heavy metals. This urbanized, commercial, and industrial watershed is generating these pollutants in both dry weather runoff and first flush stormwater flows.

Seven cities in the watershed were accountable for resolving an EPA mandate to lower TSS and heavy metals below the TMDL levels. Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount, and Signal Hill each needed a solution to manage and monitor water quality in their respective oversite areas.

Installing multiple stormwater treatment systems to eliminate the pollutants would be more costly for the individual cities and perhaps not as efficient as a single large diversion, treatment, and infiltration infrastructure on the Los Cerritos Channel at the bottom of the entire watershed.

“It represents the start of the remaking of water infrastructure in California.”

Sam Unger, Executive Director,
Los Angeles Regional Water Quality Control Board
SOLUTIONS

The seven cities impacted by the EPA mandate formed the Los Cerritos Channel Watershed Group to streamline a solution. Instead of each municipality addressing stormwater treatment individually, one large regional system was built to collectively remove the pollutants and curb costs. The Los Cerritos Channel Sub-Basin 4 Stormwater Capture Facility eliminates most polluted dry weather runoff while diverting, treating, and infiltrating first flush stormwater flows impacting the watershed.

Jensen Precast stormwater engineers designed, manufactured, and delivered a flow splitting structure and dual Jensen Deflective Separator (JDS) Hydrodynamic Separator units deployed inside two 16-foot diameter precast concrete structures to capture TSS, trash, and debris. The system efficiently pretreats diverted stormwater from the Los Cerritos Channel into a detention and infiltration gallery.

Tetra Tech, Mike Bubalo Construction, and GDH collaborated on the project with Jensen Precast. Jensen Precast engineers worked seamlessly with the consulting firms and Mike Bubalo Construction on this design build stormwater management project.

“It’s a good product for us. It takes in 166 cubic feet per second through the transition structure, then into two hydrodynamic separators, then into an infiltration gallery. I don’t know of any other system that could do that.”

Dave Sorem, Vice President, Mike Bubalo Construction

Visit jensenprecast.com/jds to size a unit and download drawings. Call us at (855) 468-5600 to speak with an engineer. Email stormwater@jensenprecast.com for a job quote.

Project Lead

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