

Field observations of the condition of inserts, excluders and a CDS system in the Coliseum area of Los Angeles, CA - 3/7/08

Vaikko Allen  
CONTECH Stormwater Solutions Inc.  
[allenv@contech-cpi.com](mailto:allenv@contech-cpi.com)

The Los Angeles Regional Water Quality Control Board has City of LA has certified both vertical and horizontal catch basin inserts as “full capture” devices which meet the trash TMDL requirements for the Los Angeles River and Ballona Creek. This decision was based on a report by the City of Los Angeles summarizing the performance of horizontal inserts in the area of Vermont Ave. and 42nd Street in Los Angeles. No vertical inserts were studied. Excluders were subsequently installed over batch basin inlets at this location as well.

The study area drains to a large CDS system. In the City’s report assessing the trash removal capability of the inserts, the mass of all material in the inserts was weighed and compared to the mass of floating materials in the CDS system. This showed that the inserts were between 92 and 97% effective over four storms. This methodology is seriously flawed since the floating trash mass is relatively small in comparison to the total weight of sediment and non-buoyant debris on the site. Based on captured material characterization studies of CDS units at other urban sites, it is likely that greater than 85% of the mass of captured pollutants in the CDS system was not floating. A more accurate measurement would have been to measure the same pollutants in both the inserts and the CDS system.

A field observation of the inserts and the CDS unit in the study was made on 3/7/08 to qualitatively assess the performance of the inserts and excluders. In most cases the insert screens were blanketed with fine sediment and debris and appeared to be impenetrable. About half the excluders were either stuck in the closed position with debris smothering the face of them, or were stuck in the open position with debris pinned in the opening. The CDS system downstream was completely full with an estimated volume of trash, debris and sediment of at least 10 cubic yards. The last date of maintenance for any of these systems is unknown.

From these observations, it is apparent that the catch basin retrofit solutions employed by the City of Los Angeles are preventing some sediment, trash and debris from entering the Los Angeles River. It is also apparent that none of these devices are reliably meeting the definition of “full capture”. The CDS system is apparently very effectively capturing materials that these devices are not capturing. All systems are in desperate need of maintenance.

Sample photos and field notes are included below. All photos are available on request.



This retractable excluder is held open by trash which is jammed in the inlet opening.



This retractable excluder is held open by trash which is jammed in the inlet opening.



This excluder is stuck closed with trash and debris occluding the screen. According to local residents the area experiences local flooding issues in wet weather.



View of L shaped insert typical of the City of LA's horizontal insert. Trash has completely smothered the insert screen and material is draped over the top of the vertical section of the insert indicating that material is freely passing downstream.



View of a vertical insert screen that is plastered with sediment and trash. There is very little trash accumulation in the insert.



View of the separation chamber of the CDS system downstream of the catch basin retrofit study area. The mat of floating material is impenetrable past about 4' with a stadia rod. The unit appears to be full with approximately 10-14 cubic yards of trash, debris and sediment.