Publication

Sediment recontamination potential and biological impacts of hydrophobic organics from stormwater in a mixed-use watershed

Haley & Aldrich's Tariq Hussain, Ph.D., a project civil engineer at Haley & Aldrich, served as lead author of an article recently published by the journal *Science of the Total Environment*. His and his co-authors' research advances the understanding of how stormwater runoff impacts Southern California's coastal watersheds.

The article, "Sediment recontamination potential and biological impacts of hydrophobic organics from stormwater in a mixed-use watershed," details the results of an investigation of the effects of hydrophobic organic contaminants in stormwater from an urban watershed on sediment and biota recontamination.

Hussain and his colleagues sampled stormwater runoff in the watershed and receiving sediments for polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs), two common organic pollutants. The researchers measured the bioaccumulation of these chemicals in bent-nosed clams.–

The study shows that most PAHs and PCBs are discharged during the early stages of a storm and are primarily associated with coarser, larger particles, resulting in sediments closer to discharge areas having higher levels of contaminants.–

Laboratory studies demonstrated that sediment contamination did *not* correlate with bioaccumulation in the bent-nosed clams, whereas porewater (which fills the spaces between sediment particles) reflected bioaccumulation

trends.–

Read the abstract.-