

# Evaluation and Design of Structural BMPs for a Municipal Waste Recycling Facility, Oakland Oakland, CA



EKI worked with both the United States Environmental Protection Agency, Region IX (U.S. EPA), and the San Francisco Regional Water Quality Control Board (RWQCB) to assist a client complying with the National Pollutant Discharge Elimination System (NPDES) General Industrial Storm Water Permit No. CAS000001, State Water Resources Control Board Water Quality Order No. 92-12-DWQ, as amended by Order No. 97-03-DWQ (General Permit).

The U.S. EPA had assessed an administrative penalty to the client for failures to meet the NPDES Permit requirements related to the NPDES Stormwater Multi-Sector General Permit for Industrial Activities (Multi-Sector Permit) (U.S. EPA, 2000). The facility is listed in the General Permit under Subsector N2, Standard Industrial Classification (SIC) Code 5093 – Processing, Reclaiming, and Wholesale Distribution of Scrap and Waste Materials.

The RWQCB had requested that new stormwater best management practices (BMPs) include new structural roofing and covering of outdoor materials. EKI was asked to determine whether other potentially more cost-effective BMPs may be allowed by the RWQCB. EKI performed stormwater hydraulic modeling for sizing of BMPs and designed BMPs in accordance with the Municipal Regional Permit. Because historically the stormwater runoff samples were believed to have been collected from locations that were not representative of site runoff, EKI successfully presented to the RWQCB that additional data were needed prior to construction of expensive roofing.

In the meantime, to help with compliance with the General Permit, EKI proposed the client route the stormwater runoff at each site through bioretention systems for treatment before discharging to the storm drains. EKI also trained employees on appropriate stormwater sampling techniques and prepared a Stormwater Pollution Prevention Plan to address constituents in stormwater discharges. Both U.S. EPA and the RWQCB approved the proposed modifications to stormwater BMPs at the facility. Subsequent stormwater quality data have been substantially reduced to concentrations below the U.S. EPA benchmark concentrations.