

WEST COUNTY LANDFILL

Treatment Plant Design
Contra Costa County, California

Client:

Republic Services, Inc.

Contract Value:

\$900,000

Performance Period:

2006—Present

Technical Areas:

- Project Piloting
- Civil Design

Successes:

Significant improvement of leachate treatment system capacity

Significant improvement in treatment system effectiveness

Reduced operating costs



BACKGROUND

The West County Landfill in Richmond, California is owned and operated by Republic Services Inc. Because it is located near the San Francisco Bay, the leachate generated at the landfill, especially the leachate generated in the Class I area, must be managed to avoid potential contamination of the Bay. The client retained SES to design and oversee construction and operation of a Class I (F039 waste) leachate treatment system.

SES ROLE

SES designed new leachate extraction and treatment systems to improve leachate extraction and generate inward hydraulic gradient within the Hazardous Waste Management Facility. Over a period of two years, SES evaluated and made recommendations for the modification of the existing treatment system. SES designed and provided CQA during the installation of the medium-term treatment system and provided pilot studies and system optimization studies to finalize the design for the permanent treatment system.

All the work was successfully undertaken while more than 300,000 gallons of leachate were being treated each month to meet discharge standards.



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