

# Projects

Under a design-build contract with the DTSC, ERRG replaced several sections of the deteriorating stormwater conveyance system. The site-wide stormwater conveyance system consisted of several miles of corrugated metal pipe (CMP) buried either above or below landfill waste and ranging from 12 inches to 84 inches in diameter. Some of the pipe sections had been covered by more than 80 feet of soil and landfill waste. Low pH conditions and the weight of the overlying soil had degraded the pipes and resulted in partial to complete collapse in many areas. ERRG designed and constructed a new stormwater conveyance system that consisted predominantly of reinforced concrete pipe and trapezoidal concrete surface channels with



limited sections of buried corrugated plastic. The stormwater conveyance system is much more robust and less likely to corrode, thus requiring less maintenance over the life of the landfill. The design of the stormwater conveyance system was based on standard "Greenbook" Standard Specifications for Public Works Construction, the industry

standard for public works designs. In most cases, the existing CMP was excavated and removed prior to construction of the new system. In one area, the depth of the CMP prohibited excavation and removal and a 42-inch smooth-wall high-density polyethylene pipe was slip-lined through the partially collapsed 84-inch CMP. A new horizontal gas collection system was designed and installed by ERRG into the locations of the removed CMP to augment landfill gas collection and control.

Because of the need to access the landfill slopes for periodic maintenance activities, vehicle crossings were designed and constructed over newly constructed trapezoidal drainage channels. The need for a 75,000 pound load capacity combined with limited available area for installation required design and fabrication of 10-inch thick pre-stressed concrete deck panels that were installed to span the 12 foot wide trapezoidal channels. ERRG's in-house design personnel prepared the design drawings and specifications.

## BKK Landfill Stormwater System Repairs

### SUMMARY

**Owner**

State of California, Dept. of Toxic Substances Control (DTSC)

**Location**

West Covina, CA

**Award Date**

May 2005

**Actual Completion Date  
or Projected Completion Date**

June 2008

**Award Amount**

\$3,800,000

**Final Contract Price**

\$6,215,000

**Services Provided**

Design/Build  
New Construction  
Renovation, Alteration and Repair  
Stormwater Conveyance Systems  
Landfill Operation  
and Maintenance



**Engineering/Remediation Resources Group, Inc.**

Office Locations > Martinez, San Francisco, Los Angeles, Tustin, Seattle, Portland, Honolulu  
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