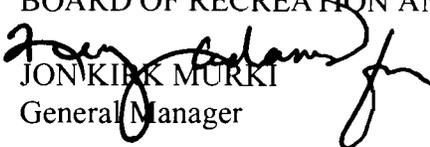


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CITY OF LOS ANGELES  
DEPARTMENT OF RECREATION AND PARKS

February 1, 2012

TO: BOARD OF RECREATION AND PARKS COMMISSIONERS  
FROM:   
JON KIRK MURKI  
General Manager  
SUBJECT: CHATSWORTH PARK SOUTH - LEAD REMEDIATION

Background

On February 14, 2008, Chatsworth Park South was closed to the public after preliminary soils testing, initiated on a citizen's complaint about small pellets in the park, showed that they were in fact lead shot from a former skeet and trap firing range on the property prior to the acquisition by the Department in 1966. In addition, clay pigeon debris used as skeet and trap targets was visible on the surface in many of the tree wells located throughout the park.

California Environmental (CE) was contracted to conduct a preliminary site investigation of the park. The Preliminary Site Investigation Report, issued in April 2008, determined that in addition to elevated levels of lead, the clay pigeon debris contained petroleum pitch by-products, including potential cancer-causing polycyclic-aromatic hydrocarbons (PAHs). Low levels of arsenic, chromium, and zinc used in the production of small lead shot or pellets were also found. However, lead was the primary constituent of most projectiles.

As a result of the preliminary testing, Department of Toxic Substances Control (DTSC) required the Department of Recreation and Parks (Department) to perform supplementary site investigations at the park, and to prepare a Preliminary Endangerment Assessment (PEA) to fully characterize the nature and extent of the suspected contamination and assess the risks of human health and ecological exposure. Accordingly, the Department entered into a Voluntary Cleanup Agreement (VCA) with DTSC on September 5, 2008 to allow DTSC to guide and oversee the PEA and eventual site cleanup. CE was again contracted through the Department's as needed consultant URS, Corporation (URS) to prepare the PEA.

### Preliminary Endangerment Assessment

The PEA was carried out in accordance with a DTSC approved work plan dated January 2010, including sampling of 42 exploratory borings, analysis of 159 individual soil samples, data reduction, preparation of a human health risk assessment, and preparation of biological survey/ecological risk assessment.

The primary hazard identified was possible human and/or animal contact with visible lead shot observed in the central portion of the park and trail area. A secondary hazard associated with the lead pellets was the release of soluble lead compounds into the environment. Visible accumulations of lead shot were ubiquitous in the bedrock outcroppings in the central portion of the park. The lead shot also accumulated in areas of water transport and segregation during high rainfall runoff events. Where observed, the pellets appeared to be oxidizing and creating soluble lead compounds that could impact the environment.

Visual mapping and subsurface analysis of individual soil samples revealed that clay pigeon debris was widespread across most of the level areas of the park due to vertical mixing from the removal and re-compaction of the soil during construction of the recreation building and surface improvements, and excavation and trenching during the installation of subsurface utilities, including the abandoned oil pipeline and 96-inch West Valley feeder line that extends directly across the former firing range.

Testing of surface and groundwater samples indicated no significant impact from contaminants associated with the firing range. PAHs were found in some surface water samples primarily where it enters the park from the Santa Susana tunnel dewatering system. The source of these PAHs is likely the diesel exhaust associated with the long-term use of the Santa Susana train tunnel. A “first flush” (following a rainstorm) surface water sample did contain low levels of lead, suggesting that soluble lead is available and can be mobilized during storm water runoff events. However, PAHs were not detected in the storm water runoff samples.

A Human Health Risk Assessment was prepared as part of the PEA. The assessment identified potential neurological and cancer-causing health risks to park workers and visitors from exposure to both lead and PAHs due to ingestion, inhalation and skin contact. Contaminates of concern included lead and antimony (constituents of the lead shot), and benzo(a)pyrene equivalents and naphthalene (PAHs constituents of the clay pigeon debris).

A biological survey and Ecological Risk Assessment were also prepared as part of the PEA. Two sensitive species were identified as potentially occurring within the park boundaries. These species included the Western Mastiff Bat and the San Fernando Spine Flower. A Phase I predictive assessment for ecological risk identified risk to birds, mammals and invertebrates in the areas of the park with known contamination.

These results and conclusions were approved by DTSC in the final Supplemental Site Investigation and PEA on January 10, 2011.

### Remedial Action Plan

Currently, the Department and its technical consultant (CE and URS) is in the process of preparing a Remedial Action Plan (Plan) for submittal to DTSC that will establish the cleanup goals for the contaminants of concern, and evaluate various cleanup methods. Possible remedial actions that will be considered include removal of impacted soils and backfill, capping of contaminated soils using artificial playing fields, fencing and exclusion, landscaping, lakes, and splitting the contaminated park areas into two operable units to allow partial reopening of the park. The Plan will also contain civil engineering drawings that provide grading specifications, drainage control procedures, and storm water pollution prevention measures. A Health and Safety Plan will address worker and public safety during implementation of the Plan.

Once there is an approved Plan, cost estimates can be developed for identifying funding for the cleanup work in accordance with the Plan. The completion of a draft Plan was on target for submittal to DTSC by November 2011. However, the Department did not secure a supplemental agreement on its URS contract and work had to be suspended. The Board approved the supplemental agreement on December 14, 2011, and Council approval was on January 17, 2012. Work is anticipated to restart in early February for the delivery of a draft Plan to DTSC in April 2012. An approved Plan and cost estimates for the cleanup could be ready by June 2012.

### Funding and Cost To Date

Funding for the project has come primarily from the City's Brownsfield fund. However, the Department covered the cost of the preliminary investigation along with the payment to DTSC under the terms of the VCA. One United States Environmental Protection Agency grant was secured for the human health risk assessment portion of the PEA work effort, and additional grants are currently being sought. Below is a summary of the costs as of November 2010 when all work was suspended.

1. Preliminary Investigation	\$ 48,569.50
2. Voluntary Cleanup Agreement	\$ 47,111.68
3. Site Characterization (PEA)	\$180,802.05
4. Remedial Action Plan (Plan)	\$ 27,651.50
Total Cost to Date	\$304,134.73

This report was prepared by Paul Davis, Environmental Specialist, Planning, Construction and Maintenance Division.