



Former Ore Mill Site Future Painted Hills Natural Resources Park

Introduction

In June 2006, as part of a Parks and Recreation plan to develop a natural resource park on a parcel located northwest of Speedway Blvd. and Silverbell Rd., Environmental Services conducted Site Assessments and discovered elevated levels of lead, arsenic, and cadmium in soil samples from a 0.21-acre section of the site. The concentrations were measured at levels exceeding those considered protective of human health and the environment by the Arizona Department of Environmental Quality (ADEQ). The site was used as a tungsten ore mill during World War II.

Upon receiving the results from the site assessment, the City immediately ordered fencing and signage to prevent public access and potential exposure. Residents concerned about the health risks should contact the The Pima County Health Department to obtain additional information about testing services.

In 2006, Environmental Services applied to have the site included in ADEQ's Voluntary Remediation Program. In 2007, the City was awarded a \$200,000 cleanup grant from the Environmental Protection Agency (EPA) to cleanup the site. In conjunction with a consultant, AMEC, an analysis of clean up options is underway to determine the best way to clean up the site for use as a public space.

Remedial Alternatives

There were 5 alternatives evaluated for site remediation. The alternatives are shown on Table 1 (see reverse side). The City recommends Alternative 3 for these reasons.

- Cost
- Effectiveness
- Ease of implementation
- Least disturbance on the neighborhood

The completed cleanup recommendation report will be available online in November 2008.

Is my drinking water impacted?

No. Tucson Water drinking water wells that serve the neighborhoods in the area are located in Avra Valley, more than 10 miles west of Tucson. There are no Tucson Water supply wells in the neighborhood. There may be private wells in the area. Please contact Environmental Services if you have a private well.

Next Steps

Environmental Services will submit the report describing the cleanup alternatives to EPA and ADEQ for approval in December 2008. Following approval City Staff will determine the time frame for the cleanup. City Staff will attend neighborhood association meetings to let you know about the progress.

For more information please contact:

Environmental Services
[For Cleanup Information]
Lynne Birkinbine or Molly Collins
520.791.5414

Tucson Water
[For Drinking Water
Questions & Information]
520.791.4331

Pima County Health Department
[For Health Testing Information]
Patti Woodcock
520.740.3755

Arizona Department of Environmental Quality
Nichole Osuch
602.771.4847

Parks & Recreation
[For Park Development Information]
Robert Just
520.837.8037



**Table 1 – Assembled Remedial Alternatives
Former Ore Mill Site, City of Tucson**

Alternative Description	Design Assumptions	Approximate Cost	Overall	
			Advantages	Disadvantages
Alternative 1 No Action	No action would be performed at the site under Alternative 1. The impacted soils would be left in place without any additional remedy.	No Cost	Lowest cost.	Does not meet objectives for future development or provide any additional reduction of existing risks at the site.
Alternative 2 Engineering and Land Use Controls	Implement engineering and controls to manage impacted materials at the former ore mill site exceeding 400 mg/kg for lead. Engineering controls include: fencing; structures at the slope face to prevent sediment erosion down the slope and into the wash adjacent to the site; and long-term dust monitoring.	\$135,000	Low cost and easily to implement.	Relative to the other alternatives, high level of maintenance and monitoring required for the life of the property.
Alternative 3 Excavate, Consolidate, and Cap	Excavate materials at the Former Ore Mill Site exceeding 400 mg/kg for lead. The excavated materials would be consolidated and placed on top of the former building foundations; a new slope would be created and would be incorporated into the final park design.	\$590,000	Avoids disposal costs. Minimizes exposure and provides groundwater protection. Reduces the amount of truck traffic and disturbance to the neighborhood.	Does not reduce or remove on-site impacted material.
Alternative 4 Excavate, Consolidate, Ex-Situ Stabilization, and Cap	Similar to Alternative 3, excavate materials exceeding 400 mg/kg for lead. The excavated materials would be consolidated, stabilized, and placed on top of the former building foundations; a new slope would be created and would be incorporated into the final park design.	\$834,000	Avoids disposal costs. Substantially minimizes exposure and provides groundwater protection. Reduces the amount of truck traffic and disturbance to the neighborhood.	Does not reduce or remove on-site impacted material.
Alternative 5 Excavate, Stabilize, and Transport Off-Site for Disposal	Excavate materials exceeding 400 mg/kg for lead. The excavated materials would be consolidated and stabilized in a temporary storage area on-site (remaining building foundations will be demolished and included into the excavation materials). All waste materials would be transported off-site to a licensed waste disposal facility. A clean fill cap would be installed as well as an asphalt/concrete cap in the relevant portions of the park design.	\$1,325,000	Eliminates the risk of exposures and potential future impact to groundwater.	Highest cost. Increased truck traffic and disturbance to neighborhood.

Notes

mg/kg: milligrams per kilogram
 TCLP: Toxicity Characteristic Leaching Procedure
 COT: City of Tucson