

Proposed Final Engineering Evaluation/Cost Analysis Report

Executive Summary

The report indicates that lead impacted surficial soil poses a potential environmental risk, justifying a non-time critical removal action. A hazard quotient value of one or less is considered “safe” with regard to the effect of a chemical of potential concern to human health or for ecological receptors. The results of the study indicate:

Human Health Hazard Quotients

Las Vegas Bay = 16.84

Echo Bay = 1.07

Temple Bar = .48

Willow Beach = .21

Ecological Receptors (Wildlife, Habitats) Hazard Quotients

Las Vegas Bay = 36.8

Echo Bay = 3.5

Temple Bar = 1.06

Willow Beach = .03

The report found that lead impacts to surface soil at Las Vegas Bay and Echo Bay do not adversely impact groundwater quality.

Leaving the surface lead impacted soil in place at Las Vegas Bay, Echo Bay and Temple Bar poses an unacceptable risk to the environment. Therefore, the NPS is engaging in a non-time critical removal action process using its authority under the Comprehensive Environmental Response, Compensation, and Liability Act.

The report identifies four courses of action:

- Alternative 1 no action would be taken.
- Alternative 2 involves excavation, on-site disposal, capping and institutional controls. Alternative 3 involves excavation, mechanical soil washing, chemical stabilization and soil replacement.
- Alternative 4, the park’s preferred alternative, involves excavation and off-site disposal with optional chemical stabilization.

In the meantime, a fence is in place around Las Vegas Bay to mitigate the risk to people. The location at Echo Bay is only a trace outside the safe value and is in an isolated location.

After reviewing public comments, the plan will be finalized, and the park will move forward with the removal action, once funding has been secured.