

Arsenic Fact Sheet

Proposed New Approach on Arsenic Contamination

The current DEM arsenic direct contact standards for soil are 1.7 PPM for residential, which represents the mean background level from two state-wide studies, and 3.8 PPM for commercial/industrial sites, which represents the risk-based standard for that type of land use. DEM has reviewed the comments and suggestions from the Department of Health, as well as suggestions from various stakeholders and have developed the following new approach for sites contaminated with arsenic as the sole contaminant.

After several discussions internally, and with stakeholders, DEM developed and implemented a policy where commercial/industrial sites with concentrations of 7 PPM and below are presumed to be contaminated due to background presence of arsenic. 7 PPM was derived from the statistical distribution of the background concentrations from the studies and represents a point where 95% of background samples are at or below 7 PPM. After several months of implementing this policy both with site remediation and dredging projects, experience with many sites has generally confirmed that statewide background is probably close to 7 PPM. DEM is working with Brown University to conduct further quantitative study of this issue over the next year.

DEM is proposing to change both the residential and commercial/industrial direct contact standards for soil to 7 PPM in the site remediation regs. The standard would be incorporated by reference in the dredging regs. The regs would also be amended to allow parties to:

- Average concentrations across a site and compare the average to the standard as long as no single sample is greater than 15 PPM (highest background concentration from the studies) and no more than 10% of the samples are greater than 7 PPM.
- Implement a presumptive remedy, after notification but without DEM review, if the average concentration is between 7 PPM and 15 PPM. Presumptive remedies being considered include a minimized cap, soil blending, or removal.

A final amendment to the regulations would provide more specific direction on the number of samples needed for a background study. Currently, the regulations require 20 samples regardless of the size of the site. The new approach will require a minimum amount (probably around 10) for a site of 1 acre or less and provide a scale of increasing numbers of samples as the size of the site increases.