

# **DTSC INTERIM GUIDANCE FOR EVALUATING LEAD CONTAMINATION OF SOIL DUE TO LEAD-BASED PAINT AT FUTURE SCHOOL SITES.**

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The exposure of school-age children to lead-contaminated soil is a great health concern because of the well-characterized toxicity of lead. Often, the source of soil contamination is weathering and/or scraping of lead-based paint on the outside of structures built prior to 1978. DTSC/HERD developed guidance that focused on collecting a limited number of soil samples in areas most likely to accumulate lead. The guidance provides a systematic sampling approach and establishes a sampling frequency for sites of varying complexity. For example: a single family home would require four surface soil samples (one on each side of the building) from underneath door jambs, window sills, etc. within the dripline of the building. The maximum lead concentration found in the samples is used in a mathematical model (LeadSpread v7) which is based on the pharmacokinetics of lead and several physiological parameters. This model estimates the blood level in children at a given lead concentration in soil. These results are used to determine whether further action is needed. Sampling locations that show high levels of lead may be subject to step-out sampling to determine the lateral and vertical extent of contamination. Case studies of proposed school sites are used to illustrate application.