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Education and communication plans to address community misunderstanding of the Soil Vapor Extraction technique

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Situated on 32.2 acres, the Centre County Kepone Site in Central Pennsylvania, USA housed a chemical manufacturing plant and a portion of the Spring Creek watershed. Kepone and Mirex were custom manufactured between 1959 and 1974. Earthen lagoons were used to manage on-site waste disposal. Later, concrete lagoons were constructed and macadamized with asphalt. Treated water was also sprayed on open grassy areas or spray fields. The numerous waste water treatment efforts impacted Thorton Spring, a part of the watershed. The aftermath was a National Priority Listing and contaminated groundwater, surface water, soils, sediments, and fish tissue, which present both carcinogenic and non-carcinogenic risk to human health. The cleanup effort was divided into two phases: groundwater remediation and soil remediation. In the Record of Decision (RD), the soil remediation effort was soil extraction. The company petitioned the EPA to amend the RD to consider both soil vapor extraction (SVE), which is a method that applies a vacuum to the unsaturated soil, or soil that is groundwater free to induce the controlled flow of air and remove volatile organic compounds and soil limited excavation. This presentation explains the educational strategies devised to address misunderstanding of SVE and presents the plan developed to manage diverse stakeholders' adoption of the SVE technique.