

The University of Michigan Dioxin Exposure Study

A Follow-up Study of Soil Outliers

Community Advisory Panel Meeting

June 5, 2007



Soil Outlier Study - Background

- ❖ The University of Michigan Dioxin Exposure Study (UMDES) analyzed soil samples from 766 properties.
- ❖ The distribution of soil results is skewed, with a small number of 'high' total TEQ values, including some from outside of areas of known contamination
- ❖ This follow-up study seeks to better understand the reasons for high soil sample values outside of the Floodplain and Plume areas.

Soil Outlier Study - Background

- ❖ This study is based on interviews with 7 respondents who lived outside the Floodplain and the Plume areas and had at least one soil sample result that was 'high'

Soil Outlier Study - Results

- ❖ In a number of cases the congener pattern of residential soil contamination matched the congener pattern of contamination found in the flood plain of the Tittabawassee River (i.e., dominated by furans), but the properties had never been flooded.

Soil Outlier Study - Results

- ❖ We believe that contaminated soil from the flood plain had been transported to fill, level or landscape some properties that were outside the flood plain of the river
- ❖ This is based on:
 - ❖ Observations of the properties
 - ❖ History obtained from respondents
 - ❖ Re-analyses of some soil samples

Soil Outlier Study - Results

- ❖ In two cases we identified other possible sources/routes of soil contamination:
 - ❖ PCBs from sandblasted pool paint
 - ❖ Mulch obtained from a municipal compost facility in the Tittabawassee River flood plain

The End