

DHSS Review of Air Sample Data from the Bridgeton Landfill Area, June 3, 2013

The Department of Health and Senior Services (DHSS) has reviewed air sample data collected for the Department of Natural Resources (DNR) near Bridgeton Landfill on June 3, 2013. Samples were collected at one location upwind of the landfill and three locations downwind of the landfill for laboratory determination of concentrations of volatile organic compounds (VOCs), aldehydes, and reduced sulfur compounds. DHSS has reviewed this data for evaluation of potential public health concerns of short-term health effects.

VOCs

Concentrations of VOCs were well below levels of public health concern. Downwind of the landfill, 20 VOCs were detected in ambient air, which ranged in concentration from 0.08 parts per billion (ppb) to 20.6 ppb and did not exceed health-based screening levels for acute exposure.

Aldehydes

Concentrations of aldehydes were well below levels of public health concern. Downwind of the landfill, six aldehydes were detected, which ranged in concentration from 0.17 ppb to 1.89 ppb and did not exceed health-based screening levels for acute exposure.

Reduced Sulfur Compounds

Individual reduced sulfur compounds were not detected in any of the air samples. While low concentrations of hydrogen sulfide were detected during the daily monitoring by the Jerome meter in downwind locations on the same day, those concentrations were less than the detection limit of the laboratory analysis for hydrogen sulfide. Additionally, while low concentrations of reduced sulfur compounds were detected during the daily monitoring by AreaRAE monitors located in the nearby downwind locations on the same day, the laboratory analysis for the individual compounds did not confirm these detections.