DHSS Follow-Up Review of Air Monitoring Data from the
Bridgeton Landfill Area, November 9, 2017 – November 13, 2017

The Department of Health and Senior Services (DHSS) has reviewed air quality monitoring data collected by the
Department of Natural Resources (DNR) at Bridgeton Landfill from the afternoon of November 9, 2017 to the
afternoon of November 13, 2017.

DNR provides continuous monitoring of reduced sulfur compounds (reported as hydrogen sulfide), sulfur dioxide,
carbon monoxide, and total volatile organic compounds (VOCs) at three fixed locations as well as routine, twice
daily, surveillance of hydrogen sulfide, benzene, and odor levels around the entire periphery of the landfill.
DHSS has reviewed both sets of data to identify potential public health concerns for short-term health effects.
Generally, samples are collected near the property boundary and dispersion is expected to reduce exposure
downwind of the sample locations.

Odors

DNR reported occasional light odors at various locations during this time period. DHSS continues to recommend
that during periods of objectionable odor, sensitive individuals should stay indoors as much as possible, avoid
outdoor exercise, and seek medical advice for any acute symptoms. Symptoms associated with exposure to strong
odors include headache, nausea, and fatigue, as well as respiratory symptoms particularly in asthmatics or other
sensitive individuals. Symptoms generally associated with strong odors typically disappear once the odors
dissipate.

Hydrogen Sulfide and Other Reduced Sulfur Compounds

Hydrogen sulfide concentrations were below levels of public health concern. Hydrogen sulfide levels are
measured by the highly sensitive Jerome meter, which detects hydrogen sulfide specifically. Reduced sulfur
compounds were periodically detected by AreaRAE monitors, but previous sampling has shown that these
detections are primarily due to a reduced sulfur compound with strong odor but lower toxicity.

Sulfur Dioxide

Sulfur dioxide concentrations were below levels of public health concern during this time period.

Benzene and Total VOCs

Benzene was not detected in ambient air at any of the surveillance locations around the landfill during this time
period. There are no health-based screening values for total VOCs. However, total VOC data are used to identify
the need for compound-specific sampling. To be proactive, DNR is performing weekly VOC compound-specific
sampling in locations upwind and downwind of the landfill. The laboratory results are submitted for DHSS
review of public health concerns and that analysis is regularly posted online.

Carbon Monoxide
Average carbon monoxide concentrations were below levels of public health concern.

**Radiation Rates**

Gamma radiation rates continue to be indistinguishable from natural background levels and were below levels of public health concern.