

# Update

## Mercer Rubber Off-Site Investigation

Hamilton Township, Mercer County

September 2007

### Phase II - Soil and Sediment Sampling at Sayen Garden

#### Overview

In October 2006, NJDEP conducted soil, sediment, surface and ground water sampling at the Sayen Gardens in Hamilton Township, Mercer County in areas of alleged dumping. Subsequent to that sampling, the NJDEP was informed of additional areas where alleged dumping may have occurred or contaminated material may have been present. In response to the concern that there may be additional areas of contamination, and to delineate contamination detected in October 2006, the NJDEP conducted a second round of sampling in the Sayen Gardens in March 2007.

**The results of the second round of sampling indicate that there are low-levels of contaminants in the areas sampled at Sayen Gardens. The contaminants can not be directly related to the Mercer Rubber Plant and there is no residual evidence of the alleged dumping. The low-level contaminants do not pose a threat to anyone using the facilities.**

**The contaminants detected are similar to those found in other urban/semi-urban developed areas of the state and no further investigation is necessary at this time. There were no contaminants detected in any of the ground water or drinking water samples taken and NJDEP and NJDHSS conclude that the drinking water is safe.**

#### Areas Sampled

On March 21, 2007, additional soil and sediment sampling took place in selected areas of Sayen Gardens. Three new locations were sampled and are designated as follows: "Area Behind the Gazebo," "Area at the North End of the Park," and "Bermed Area Along the Unnamed Tributary of Miry Run."

Delineation sampling occurred in the previously sampled areas designated as "Area North of the Sayen House," "Area Near the Skating Pond," and sediments within the "Unnamed Tributary of Miry Run."

#### Sampling Results

**Area North of Sayen House** - Contamination was detected in two surface soil samples collected in October 2006 (S3A and S4A). The contaminants detected above applicable standards were lead and one polycyclic aromatic hydrocarbon (PAH), specifically, benzo(a)pyrene. To delineate this contamination, seven additional soil samples were collected in March 2007. These samples were collected from within a ten-foot radius of the original samples and analyzed for lead and PAHs. **No contaminants were detected above applicable standards in any of the samples.**

**Area near skating pond** - Contamination was detected in one surface soil sample, S9A, collected in October 2006. The contaminant detected above its applicable standard was lead. To delineate this contamination, four additional soil samples were collected in March 2007. These samples were collected from within a ten-foot radius of the original sample and analyzed for lead. **Lead was not detected above its applicable standard in any of the samples.**

**Skating pond** - Low levels of PAHs, metals and pesticides were detected in sediment and surface water samples collected in October 2006 at concentrations slightly above the ecologically based sediment quality criteria used by NJDEP. At that time, the NJDEP determined that the concentrations of these **contaminants were consistent with what is typically found in water bodies receiving run-off in a developed environment.**

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**Therefore, no additional sampling was conducted in this area.**

**Unnamed Tributary of Miry Run** - Petroleum-type product was found in one of the surficial sediment samples collected (SED10A) in October 2006. In March 2007, NJDEP delineated the extent of this product by collecting sediment samples at five-foot intervals upstream and downstream of this original location, and visually inspecting the sample for product. It was determined that the product-contaminated area extends five (5) feet upstream and 15 feet downstream of SED10A, totaling 20 feet of product impacted sediments.

Sediment and surface water samples were collected from along the entire length of this unnamed tributary of Miry Run in October 2006. **Low levels of PAHs, metals and pesticides were detected at concentrations slightly above the ecologically based sediment quality criteria used by NJDEP. The NJDEP determined that the concentrations of these contaminants were consistent with what is typically found in water bodies receiving run-off in a developed environment. Therefore, no additional sediment and surface water sampling was conducted in this area for these contaminants.**

### **New Areas Sampled**

**Area Behind Gazebo** - This area is located behind (west) the Sayen House. One soil boring location was sampled; one shallow and one deep soil sample were collected. Both samples were analyzed for Target Compound List (TCL) Base Neutral/Acid Extractable (BN/AE) compounds and lead. **No contaminants were detected above applicable standards in either of the samples.**

**Area Near North End of Park** - This area is located north of the "Area North of Sayen House," near the park boundary near Percy West Drive. One surface soil sample was collected and analyzed for TCL BN/AE compounds and lead. A deeper sample was not collected, as this area was flooded at the time of the sampling. **The only contaminant detected above applicable standards in this sample was lead.**

**Bermed Area along Unnamed Tributary of Miry Run**  
The unnamed tributary of Miry Run was reportedly historically dredged and the dredged materials placed along the eastern side of the tributary, forming the present day bank/berm. Because the tributary sediments contained

low-levels of metals and PAHs, it was determined that sampling of the berm was appropriate. Samples were collected from three locations, corresponding to original sediment/surface water locations 6A, 8A, and 10A. Samples were collected at two depths at each location - one shallow sample and one sample from immediately above the ground water table; the actual depth of the deeper sample varied depending on the depth to ground water (3.0 feet below grade to 7.0 feet below grade). The samples were analyzed for TCL BN/AE compounds and Target Analyte List (TAL) metals. **PAH contaminants were detected in two of the shallow samples.**

### **Conclusion**

**The data indicate that some areas of Sayen Gardens continue to have levels of contaminants above the most restrictive soil clean up criteria. These include the area north of the Sayen House; area near skating pond; unnamed tributary of Miry Run; area near the north end of the park; and the bermed area along the unnamed tributary of Miry Run. However, these levels are consistent with what could be expected for a developed area.**

**The levels of PAH compounds and lead, although over the criteria, do not pose a risk to park visitors or neighbors living near the park. A public health concern may exist only if there are consistent contacts with the materials. The materials of concern are not located in areas where visitors or neighbors have regular and consistent contact. The only exception is the petroleum-type product found in the brook. In the coming months, the NJDEP will remove this product from the brook and eliminate any exposure concerns.**

**There were no contaminants detected in any of the ground water or drinking water samples taken. NJDEP and NJDHSS conclude that the drinking water is safe and the contaminants do not present a health risk.**

**For more information please contact  
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