

City of Lambertville



Benedetta Lambert
Council President

Steve Stegman
Councilman

Andrew J. Nowick
Mayor

Karen J. Kominsky
Councilwoman

Evan J. Lide
Councilman

February 12, 2025

Information regarding Cavallo Park:

In March 2013, a Preliminary Assessment Report identified three areas of concern (AOCs) associated with the site. These included AOC #1 – Former Structures/Site Operations, AOC #2 – Potential Fill Material/Historic Fill, and AOC #3 – Off-site Sources of Contamination.

In July 2013, a Site Investigation was performed to assess the three AOCs. The Site Investigation included a geophysical investigation that was conducted to assess several small areas of buried metal debris, and a soil investigation was conducted to investigate the three AOCs. Soil samples were collected from depths between 3.5 and 8.5 feet below ground surface (bgs). Beryllium and lead were detected at concentrations above NJDEP's Default Impact to Groundwater Soil Screening Levels (DIGSSL).

In November 2013, a Remedial Investigation was performed by NJDEP to further investigate the soil exceedances previously identified and assess the historic fill further. Soil samples were collected from five (5) locations. The investigation included the collection of surface (0 to 6 inches bgs) and subsurface (18 to 24 inches bgs) samples. The surface results identified benzo(a)pyrene and/or benzo(b)fluoranthene (collectively these are known as polycyclic aromatic hydrocarbons or PAHs) in three (3) samples above NJDEP's Direct Contact Soil Remediation Standards (DCSRS) and/or DIGSSL. The subsurface results identified PAHs (also including benzo(a)anthracene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene), arsenic, and lead above NJDEP's DCSRS and/or DIGSSL in three (3) of the five (5) samples. In May 2014, additional soil delineation was undertaken to delineate historic fill and NJDEP Soil Investigation exceedances. Five (5) historic fill material samples were collected between 5.0 and 6.5 feet bgs and were analyzed for the previously identified exceedances. One sample had PAH, beryllium, and lead exceedances. These exceedances are consistent with historic fill material. Five (5) NJDEP Soil Investigation samples were collected between 4.5 and 6 feet bgs. One sample had select PAH, beryllium and lead exceedances, and three other samples had beryllium exceedances. Based on these results and the absence of historic fill in the soil borings, excavation of this material was proposed.

In August 2015, a Remedial Action was performed to address the soil concerns. A soil excavation was completed to a depth of two (2) feet below the corresponding RI sample, or up to 8.5 feet bgs. Post-excavation samples were collected to determine if the excavation work removed all of the soil concerns. Twelve (12) post-excavation samples were collected and analyzed for the constituents of concern. Most samples reported concentrations of targeted PAHs and/or metals above NJDEP's DCSRS and/or DIGSSL. Based on these results, an additional two (2) feet of soil was removed from the excavation. Eighteen (18) post-excavation samples were collected and analyzed for the constituents of concern. All results were below NJDEP's DCSRS and DIGSSL except for beryllium. Past site operations did not

include the usage of beryllium; therefore, beryllium was suspected to be related to ambient levels of metals and not a discharge. The excavated soils were disposed of off-site.

The presence of historic fill required the implementation of engineering and institutional controls as part of the remedial action. The presumptive remedy for the site was capping, which consists of a physical barrier, buffer, visible demarcation, and inspection. The physical barrier is defined as either a durable surface material or a clean fill layer that prevents direct human contact to the contaminated material. Clean fill densely graded aggregate (DGA) was utilized for the cap. A buffer layer consists of a separate additional clean fill layer (topsoil, dirt, gravel, etc.) of another specified thickness that provides added protection from exposure in the event of breaches of the physical barrier. The buffer layer is placed immediately below the barrier with no space in between the layers. Visible demarcation is a visible boundary marker (e.g., orange plastic snow fence or geotextile fabric), which provides a visible warning of the vertical limit of the engineering control. The improved areas included the playground play areas, concrete walkways, and landscaped areas. Each improved area had different caps above the snow fence demarcation layer.

In March 2019, soil samples were collected to assess the topsoil used as the final cover for the installed engineering cap because a clean fill certification was not provided for the imported topsoil. Eight (8) samples were collected from 0 to 6 inches bgs and analyzed for Extractable Petroleum Hydrocarbons (EPH), pesticides, semi-volatile organics (which includes PAHs), and metals. Benzo(a)pyrene was reported and exceedances of NJDEP's DCSRS were identified at two (2) locations and lead exceeded NJDEP's Migration to Ground Water Soil Remediation Standard (MGWSRS), which replaced NJDEP's DIGSSL, at three (3) locations. Since the topsoil was not part of the underlying historic fill, the results were also compared to NJDEP's Soil Ecological Screening Criteria (SESC). Several compounds exceeded the SESC.

In November 2023, delineation samples were collected in the four cardinal directions around each exceedance. The lead concerns were mitigated when a site-specific MGWSRS was developed, and the highest lead result became the site-specific MGWSRS. There were no lead DCSRS concerns at this time. However, on May 6, 2024, NJDEP reduced the DCSRS which led to several lead exceedances. Benzo(a)pyrene was the only other exceedance assessed with step-out samples collected five (5) feet from the original sample. The step-out samples continued to have exceedances, so additional sampling is required to further delineate.

The City of Lambertville will be conducting a comprehensive assessment of the topsoil through the collection of grid sampling to assess DCSRS and SESC concerns at the site. Once the exceedances are defined horizontally, the impacted areas will be addressed through the excavation of the material and the placement of certified clean fill material above the buffer material.