



RIDGEWOOD PUBLIC SCHOOLS

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January 8, 2020

Re: Soil Remediation Public Notice Orchard Elementary School
230 Demarest Street, Ridgewood NJ

Dear Orchard School Community,

The Ridgewood Board of Education (RBOE) is providing this letter as public notice that soil remediation activities associated with the former ash fill cover located at the Orchard Elementary School in the Village of Ridgewood will be conducted over the 2020 summer season. On Wednesday, January 22, 2020 at 7:00 pm, we will host an informational meeting in the Orchard gym. Our district environmental engineer, David Terry Licensed Site Remediation Professional (LSRP), his associate Matthew Ayers LSRP, and our district school physician, Dr. Wayne Yankus will be present to explain the scope of work and answer your questions.

Prior to the 1960s, the Orchard School property was used by the Village of Ridgewood as a landfill for residential boiler coal ash. In order to facilitate the construction of the Orchard School, soil fill was brought in to cover the coal ash and raise the grade of the property in certain areas. This soil fill has been found to contain polycyclic aromatic hydrocarbons (PAHs), lead, and arsenic at concentrations above the New Jersey Department of Environmental Protection (NJDEP) Residential Soil Remediation Standards. Although the PAHs are the same materials used in typical asphalt surfaces and are widespread in the urban environment, this soil needs to be removed and replaced or covered with additional clean fill in order to remain in compliance with the NJDEP requirements. Lead and arsenic are metals that occur naturally in the environment. It is believed that concentrations at these levels are primarily due to the material used to cap the ash, as well as atmospheric deposition from coal burning furnaces and similar sources in the area. One such example is the former coal gasification plant that operated next door to the school.

This summer, the RBOE plans to remove and replace surface soil with clean soil and/or bury the existing soil with clean soil by hand digging and the use of excavation machines. The work areas will be restored with grass or other landscaping as necessary, which will reduce areas that collect water, especially on the athletic field. This work is anticipated to take approximately 45 days to complete. Historical information concerning the Orchard property and the adjacent neighborhood is attached.

Sincerely,

Daniel Fishbein, Ed.D
Superintendent of Schools

CC: Ridgewood Board of Education
Dr. Wayne Yankus, School Physician
Mrs. Mary Ferreri, Orchard School Principal
Mr. Mathew Ayers, PG, LSRP, WSP. USA
Mr. David Terry, WSP.USA



This is a historical summary of the New Jersey Department of Environmental Protection (NJDEP) environmental case at the Orchard Elementary School (the Site) which commenced in the early 1990's. Based on review of previous documents and associated data, the following is a chronological summary of events and activities completed to date at the Site:

- The Bellair Condominium property, located north of the Orchard School, was historically owned by the Ridgewood Gas Company, which operated a manufactured gas plant at this neighboring site. This site has been investigated and found to contain contaminants associated with manufactured gas plant (MGP) operations. This site has been through various stages of investigation and remediation performed by Public Service Electric & Gas (the successor to Ridgewood Gas Company) under the oversight of the NJDEP.
- The Bellair Park property, also located north of the school, has been identified as containing municipal ash waste, which was reportedly derived largely from household boilers in the Village of Ridgewood. The Site is currently listed on the Division of Solid and Hazardous Waste as a New Jersey Landfill (U772) due to the historic disposal of coal ash at the Site. The landfill extends onto neighboring properties, including several adjacent residential properties and the Orchard Elementary School.
- Prior to development, this area consisted of low-lying wooded marshlands associated with the Diamond Brook. In addition to the ash landfill operations conducted in the 1940s, 1950s and early 1960s, this area was filled in using a substantial amount of soil, wood, metal, and other "Historic Fill" materials to achieve its current grade at some point in the early to mid-1960s (prior to the construction of Orchard Elementary School).
- The Orchard Elementary School property currently contains one main building surrounded by grounds of mixed-use including playgrounds, paved play surfaces, landscaped areas, paved and unpaved walkways, a paved parking lot, and a recreation field that is also used by the general public.
- As part of an investigation of coal ash fill materials conducted by the NJDEP in 1992, six soil samples were collected from three borings completed at the Site. Based on the conditions encountered during the completion of the soil borings, it was determined that a white coal ash material was present at depths between 0.5 to 3 feet below grade (ft bg) on the school property. The collected ash fill samples were submitted for laboratory analyses for metals and base-neutral extractables (BNs). The result of these analyses indicated elevated levels of arsenic and lead, as well as several BN compounds within the white coal ash layer.
- In 1997, Leggette, Brashears and Graham, Inc. (LBG) completed a Remedial Investigation (RI) of the ash fill material on behalf of the Village of Ridgewood to visually delineate the extent of the coal ash fill across the Site as required by the NJDEP. Based on these findings, a Remedial Action Workplan (RAW) was prepared and approved by the NJDEP, which included regrading

of the existing soils at the Site to make sure that at least 18 inches of soil would remain over the white ash fill layer. The proposed regrading work was completed between August 2000 and August 2001. A Remedial Action Report (RAR) was then submitted to the NJDEP in October 2001 for review outlining the completion of this work.

- In August 2007, a screening survey investigation was conducted by LBG at the request of the Ridgewood Board of Education (BOE) to investigate whether pesticides or other contaminants were present in the surficial soils at the Site. This investigation determined that the Orchard School property was widely underlain by fill materials which are categorized as "Historic Fill" by the NJDEP. Although pesticides were not present, the shallow soil was found to contain concentrations of certain polycyclic aromatic hydrocarbons (PAHs) that exceed the NJDEP Residential Direct Contact Soil Remediation Standard (RDCSRS). Although the concentrations of these compounds at the Site were found to exceed the NJDEP RDCSRS, they were within the expected range of concentrations for sites containing Historic Fill material in New Jersey.
- In 2009, the State of New Jersey promulgated the Site Remediation Reform Act (SRRA) which requires that sites subject to New Jersey Spill Act or Industrial Site Recovery Act (ISRA) are to proceed with remediation under the supervision of a Licensed Site Remediation Professional (LSRP), without NJDEP approval.
- In February 2012, A Receptor Evaluation (RE) Report was submitted to the NJDEP as required under the new SRRA rules. The RE indicated that no ecological receptors were affected by the coal ash fill.
- In September 2012, the BOE retained LSRP (WSP USA) for required compliance.
- In 2014, a RI Report was submitted to the NJDEP summarizing the results of the RA Report submitted in 2001 in order to remain in compliance with the requirements set forth in the SRRA rules, as the previous report from 2001 was never reviewed by the NJDEP.
- A Human Health Risk Assessment with a proposal for an Alternative Remediation Standard (ARS) was submitted to the NJDEP in May 2019. The ARS proposal petitioned for the soil cover to be left in place, since the exposure duration was limited based on the use of the Site. The proposed ARS application for the Site was determined not approvable by the NJDEP, because the property is utilized for a school. Therefore, additional action is necessary either by removing or capping over the existing ash fill cap.
- Currently, the Site is listed in the NJDEP's Site Remediation Program (SRP) database as being required to have the remedial action completed by the regulatory deadline of February 6, 2021.