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February 26, 2020

Email: [Dfishbein@Ridgewood.k12.nj.us](mailto:Dfishbein@Ridgewood.k12.nj.us)

Phone: 201-670-2700 Ext 10530

Ridgewood Board of Education

49 Cottage Place

Ridgewood, NJ 07450

Attn: Daniel Fishbein, Ed.D.

Superintendent of Schools

Subject: RAWP Review & NJDEP Approval  
Orchard Elementary School  
Block 2313, Lot 10  
Demarest Street and Orchard Place  
Ridgewood, NJ 07450  
NJDEP PI# G000008572  
LAN Ref. #2.2033.297

Dear Dr. Fishbein:

I am writing to you per your request for my professional opinion as a Licensed Site Remediation Professional (LSRP) concerning the Remedial Action Workplan (RAW) for the Orchard School Portion of the Ridgewood Ash Landfill NJDEP PI#G000008572.

I have reviewed the RAW submitted to the New Jersey Department of Environmental Protection (NJDEP) by WSP (February 11, 2020) and generally agree with the scope of work, timeline, and details provided in the RAW for the Orchard School site that was approved on February 13, 2020 by the NJDEP as an alternative remedy due existing site conditions (Attachment #1).

Should you have any questions please do not hesitate to contact me directly at (201) 447-6400, or via email at [gerrit.visscher@lanassociates.com](mailto:gerrit.visscher@lanassociates.com).

Respectfully submitted,

LAN Associates, Engineering, Planning,  
Architecture, Surveying, Inc.

Gerrit Visscher, LSRP  
Sr. Director of Environmental Services

Attachments: #1 – NJDEP RAW Approval, (2/13/20).

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cc: File #2.2033.297, w/att. (Digital)



## State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Site Remediation and Waste Management Program  
DIVISION OF ENFORCEMENT, TECHNICAL & FINANCIAL SUPPORT  
BUREAU OF ENVIRONMENTAL EVALUATION AND RISK ASSESSMENT  
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PHIL MURPHY  
*Governor*

CATHERINE MCCABE  
*Commissioner*

SHEILA OLIVER  
*Lt. Governor*

### Alternative Remedy Approval

February 13, 2020

Antoinette Kelly  
Village of Ridgewood Board of Education  
49 Cottage Place  
Ridgewood, NJ 07450

Re: Ridgewood Ash Landfill (Orchard School)  
230 Demarest Street  
Ridgewood, Bergen County  
SRP PI# G000008572

Dear Ms. Kelly,

The New Jersey Department of Environmental Protection (Department) has completed review of the Alternative Remedy Application for the subject site, received in the Bureau of Environmental Evaluation and Risk Assessment (BEERA) on February 10, 2020. The 5.92-acre site is an active elementary school (Orchard Street School) surrounded by two playgrounds, a paved parking lot, and an athletic field. The site is underlain by soils containing historic ash fill material with levels of polycyclic aromatic hydrocarbons (PAHs) and lead above Direct Contact Soil Remediation Standards (DCSRS). The Remedial Action Workplan (RAW), submitted to the Department on February 10, 2020 in conjunction with the Alternative Remedy Application, proposes to institute a site-wide cap to prevent direct contact exposure to contaminants associated with the historic ash fill material. The capping and monitoring proposed is intended to be consistent and in compliance with the Department's Presumptive and Alternative Remedy requirements.

Pursuant to N.J.S.A. 58:10B-12(g), the Department is required to establish presumptive remedies for any remediation initiated after May 7, 2010, at a site or area of concern (AOC) where new construction or change of use is proposed for residential purposes, for use as a child care center, or as a public or private school. If a person responsible for conducting remediation, initiated remediation at a school, child care center or residence before May 7, 2010, they are not subject to presumptive remedy requirements. However, they may voluntarily submit a RAW to the Department if that person desires pre-approval for an Alternative Remedy. Once a RAW is

submitted with an Alternative Remedy proposal, Departmental approval must be obtained prior to implementation of the remedial action. Due to community concerns regarding potential exposures to contaminants associated with the historic fill material and remediation of the property, the licensed site remediation professional (LSRP) for the site, David Terry (LSRP #575840), voluntarily submitted an Alternative Remedy Application for Departmental approval.

The concrete, asphalt, and other paved surface areas (this includes, sidewalks, pavers, parking lots, and basketball courts) on the site all currently meet or exceed presumptive remedy requirements. The LSRP has determined that the use of presumptive remedies is impractical for the remaining portions of the site due to its pre-existing construction and because the site is in the 100-year floodplain and the grade cannot be substantially changed. Alternative remedies are proposed for the two mulched playgrounds, athletic field, lawn areas, landscaped areas, and the existing building foundation that offer a modified buffer and barrier layer thickness with an increased inspection frequency to ensure the remedies are equally protective over time. In addition, fencing and signage will be placed along the adjacent Diamond Brook and wetlands to restrict access to those areas. A description of the presumptive remedy requirements, the proposed Alternative Remedy, and the Department’s findings for each exposure area on site are listed below.

**Mulched playgrounds:**

<u>Presumptive Remedy:</u>	<u>Alternative Remedy Proposal:</u>
<b>Barrier:</b> min 1 ft clean fill material	1 ft mulch
<b>Buffer:</b> min 1 ft clean fill material	6” mulch
<b>Demarcation:</b> geotextile fabric	geotextile fabric
<b>Inspection:</b> quarterly	quarterly

BEERA notified the LSRP that to offset the reduced buffer layer thickness of the two mulched playground areas, an increased inspection frequency from quarterly to monthly is required to ensure the remedies are equally protective over time. The LSRP agreed, in an email dated February 12, 2020, to increase the inspection frequency to monthly in order to offset the reduced buffer layer thickness for the two mulched playground areas on site. BEERA finds the proposed Alternative Remedy acceptable with a monthly inspection requirement.

**Athletic Field and Lawn Areas:**

<u>Presumptive Remedy:</u>	<u>Alternative Remedy Proposal:</u>
<b>Barrier:</b> veg. cover w/ min 1 ft clean fill	grass w/ 6” clean fill
<b>Buffer:</b> min 1 ft clean fill material	6” clean fill
<b>Demarcation:</b> geotextile fabric	geotextile fabric
<b>Inspection:</b> annual	quarterly

BEERA finds the proposed Alternative Remedy acceptable for the athletic field and lawn areas (depicted in Figure 2 of the RAW as Areas 1, 2, 3, and 5) because the increased inspection frequency offsets the reduced buffer and barrier layer thicknesses. The proposed quarterly inspection frequency of the athletic field and lawn areas is very conservative and a semi-annual

inspection frequency for these areas would also be acceptable since the presumptive remedy inspection requirement is annual.

**Landscaped Areas:**

<u>Presumptive Remedy:</u>	<u>Alternative Remedy Proposal:</u>
<b>Barrier:</b> min 1 ft clean fill	1 ft mulch
<b>Buffer:</b> min 1 ft clean fill	6" mulch
<b>Demarcation:</b> geotextile fabric	geotextile fabric
<b>Inspection:</b> semi-annual	quarterly

In addition to the Alternative Remedy proposed above for the landscaped areas, the roots of large trees, left undisturbed at the site, will have a demarcation barrier placed in a three-foot wide circumference around the tree followed by a one foot thick cover of cobble sized river rock over top. BEERA finds the proposed Alternative Remedy acceptable for the landscaped areas and trees because the increased quarterly inspection frequency will offset the reduction in the buffer layer.

**Existing Building Footprint:**

<u>Presumptive Remedy:</u>	<u>Alternative Remedy proposal:</u>
<b>Barrier:</b> min 4" concrete	unknown
<b>Buffer:</b> min 4" sub base	unknown
<b>Demarcation:</b> not required	none
<b>Inspection:</b> annual	semi-annual

The barrier and buffer layer thicknesses were not provided for the existing building foundation in the RAW and the LSRP notified BEERA in a telephone conversation and email that the exact thickness of the concrete foundation and subbase was unknown. As such, BEERA advised the LSRP that an increased inspection frequency from annual to semi-annual would be required for the existing building foundation to ensure the integrity of the cap. The LSRP agreed to the increased inspection requirement in an email dated February 12, 2020, and therefore, BEERA finds the proposed Alternative Remedy acceptable.

**Concrete, Pavers or Asphalt Surfaces:**

<u>Presumptive Remedy:</u>	<u>Alternative Remedy proposal:</u>
<b>Barrier:</b> min 4" concrete or asphalt	min 4" concrete
<b>Buffer:</b> min 4" sub base	6" sub base
<b>Demarcation:</b> visible contamination marker	visible contamination marker
<b>Inspection:</b> annual	quarterly

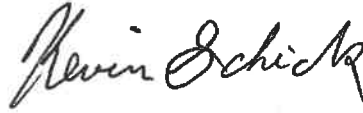
BEERA finds the proposed Alternative Remedy for the existing concrete, pavers, and asphalt surfaces acceptable because the Alternative Remedy proposed exceeds the protectiveness of the presumptive remedy requirements. An annual inspection frequency, versus quarterly, would also

be acceptable for these areas since the buffer, barrier, and demarcation layers all meet or exceed presumptive remedy requirements.

The Department has determined that the Alternative Remedy proposed for Block 2313, Lot 10 is in compliance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E, the Alternative and Presumptive Remedy guidance document, and other applicable requirements. The Department hereby approves the Alternative Remedy effective the date of this letter. The Remedial Action Report for the site must include a deed notice and a soil Remedial Action Permit, as well as applicable forms and fees.

If you have any questions regarding this Alternative Remedy approval please contact, Erica Snyder in BEERA at 609-984-0325 or [erica.snyder@dep.nj.gov](mailto:erica.snyder@dep.nj.gov).

Sincerely,

A handwritten signature in black ink that reads "Kevin Schick". The signature is written in a cursive style with a large, stylized initial "K".

Kevin Schick  
Bureau Chief BEERA

cc: David Terry, LSRP, WSP  
Matthew Ayers, LSRP, WSP  
Erica Snyder, BEERA/NJDEP