

October 16, 2015



IESI PA Bethlehem Landfill Corporation
c/o Mr. Allen Schleyer, District Landfill Manager
2335 Applebutter Road
Bethlehem, PA 18015-6004

Re: First Environmental Assessment Review
IESI PA Bethlehem Landfill
Major Permit Modification – Southeastern Realignment
Application No. 100020-A151
APS# 870519 AUTH# 1072854
Lower Saucon Township, Northampton County

Dear Mr. Schleyer:

On January 21, 2015, the Department of Environmental Protection (DEP) received an application for a major modification application for IESI PA Bethlehem Landfill's (IESI) Southeastern Realignment project. The expansion area is to be located within the current permit boundary and involves expanding over existing fill areas and a small portion of new disposal area in the southeast corner of the site. A Local Municipality Involvement Process meeting was held on March 11, 2015. The application was found to be complete and officially accepted on March 31, 2015. A public meeting was held on June 22, 2015 at Saucon Valley High School. There has been public interest in the application. The following comments are the result of DEP's first Environmental Assessment review of the application.

Environmental Assessment Harms vs. Benefits analysis required by §271.126-127

The IESI application is subject to the Environmental Assessment Process regulations and as such, the application included an analysis of the potential impact of the proposed facility on the environment, public health and public safety including a description of the known and potential harms of the proposed project and mitigation plans that explain how each known or potential harm will be mitigated and the extent to which any known or potential harms remain after mitigation. The application also included a description of the benefits of the proposed project. The following summarizes DEP's review of the Environmental Assessment Harms/Benefits Analysis of the IESI Southeastern Realignment application. The scope of this review is limited to harms and benefits of the Southeastern Realignment proposal and does not consider harms and benefits associated with the current landfill as permitted other than to the extent that past performance can be used as an indicator future performance.

General Comments

- ROUTING**
- Council Manager
 - Asst. Mgr.
 - Zoning
 - Finance
 - Police
 - P. Works
 - P/C
 - P & R
 - EAC
 - Engineer
 - Solicitor
 - Planner
 - Landfill
 - EMC
 - Other

1. The application did not include the municipal and county land use letters called for in the land use section of the general information form.
2. DEP received a comment letter from the Township Council of Lower Saucon Township dated July 7, 2015. IESI should provide DEP with a written response to the comments raised in this letter.
3. The plans indicate that more landfill area will be uncapped or active, with the proposed cap removal in the Phase II area and waste relocation in Cell 4-E, than currently exists at the site. The closure sequence should be revised to minimize uncapped area in each proposed phase of the project. The application should be revised to include specific timeframes for capping of cells.
4. The application should be revised to include more detailed information on the sequencing of the cap removal, gas system removal and construction within Cells SE1-A, SE1-B, SE2-A and SE2-B.

Comments related to the Form D – Environmental Assessment

1. **Exclusionary Criteria – Airports:** IESI has not demonstrated that the proposed expansion meets the exclusionary criteria defined in §273.202(16) “*Obstruction. For areas permitted on or after December 23, 2000, in a manner in which any portion of the landfill would be an obstruction to air navigation under 14 CFR § 77 Subpart C (relating to standards for determining obstructions).*”

The letter IESI provided from Pennsylvania Department of Transportation (PennDOT) notes that the landfill expansion meets notification criteria and that a formal notice of alteration should be forwarded to PennDOT and the Federal Aviation Administration (FAA). IESI should submit the requested information to PennDOT and the FAA. This formal notice of alteration should include the height of any temporary equipment necessary to construct and operate the landfill. IESI should provide DEP with a determination from PennDOT that the expansion will meet the exclusionary criteria.

2. **Form D, Section B - Scenic Rivers:**

Questions 11 and 12: The application does not take into consideration the volume control or water quality treatment requirements of Chapter 102. A volume control requirement is essential to mitigate the consequences of increased stormwater runoff. IESI should provide the post construction stormwater management (PCSM) Best Management Practices (BMPs) to mitigate potential volume and water quality impacts consistent with the requirements of DEP’s Chapter 102 regulations. The PCSM plan must be accompanied with a schedule to install any post construction stormwater BMPs.

3. **Form D, Section C - Wetlands:**

Question 1: IESI should verify the reduction in wetlands through the Army Corps of Engineers jurisdictional determination process. IESI should determine if wetlands onsite are Exceptional Value.

4. **Form D, Section D - Parks:**

Question 1: A township park is located in Steel City, northwest of the landfill. The landfill is also located within 1 mile of the Delaware & Lehigh National Heritage Corridor, a unit of the National Park System. Potentially there could be visual and other potential impacts associated with landfill operations that could affect these facilities. IESI should provide an analysis that considers potential impacts to those who would use these facilities.

5. **Form D, Section E – Fish, Game and Plants:**

Question 1: IESI states that the project is not located within 1 mile or within an identified potential impact area of a national wildlife refuge, national fish hatchery, or national environmental center operated by the U.S. Fish and Wildlife Service. This determination was based on a letter from the US Fish and Wildlife Service from 2001. IESI should provide a current notification and response letter.

Question 3: The correspondence IESI provided related to endangered, threatened and rare plant or animal species is from 2014. Effective May 4, 2015, the northern long-eared bat (*Myotis septentrionalis*) is a federally protected threatened species under the Environmental Species Act. Any Pennsylvania Natural Diversity Inventory (PNDI) receipts obtained prior to May 4, 2015 do not encompass the northern long-eared bat and a new search is required for all pending applications. IESI should provide current PNDI search results and correspondence. The PNDI environmental return receipt identifies a potential impact to *Ellisia (Ellisia nyctelea)*. IESI should provide correspondence from the PA Department of Conservation and Natural Resources that addresses this potential impact.

Question 4: IESI states that this project will not impact critical and unique wildlife habitats; however, this response may need to be revised once the comments in item 3 above are addressed.

Question 8: IESI should identify fish species that may be present in perennial streams. IESI has identified no anticipated adverse impacts on the stream(s) from the project which may be incorrect as there is potential for stormwater runoff laden with sediment pollution to impact the stream(s). Measures should be described that will be taken to minimize adverse impacts on the stream(s).

Question 9: IESI should provide additional information on the route trucks hauling soil and construction materials to the site will take to verify that the proposed expansion does not present a visual harm to the Lehigh River Corridor.

6. **Form D, Section F – Water Uses:**

Question 1: The project is not located within the watershed or aquifer, and within 1 mile, of a public water supply facility dependent on groundwater sources; or upstream, within the watershed, and within 3 miles of a public water supply facility dependent on surface sources. The letter provided by IESI from Meiser & Earl, Inc. is dated August 2001. IESI should provide a current letter.

7. **Form D, Section G – Recreation:** IESI identified the existing parks and trails along the Lehigh River Corridor that run along the foot of the north slope of the ridge which are obstructed from view of the landfill by the mountain ridge. There is a perpetual scenic and conservation easement for the entire north slope of the ridge directly opposite of the existing landfill as well as a woodland protection easement which parallels the ridgeline, just to the north of the landfill permit area. IESI should provide additional information on the route trucks hauling soil and construction materials to the site will take to verify that the proposed expansion does not impact the river corridor.

8. **Form D, Section H – Historic/Archaeologic:**

Question 2: The letters provided by IESI from the PA Historical and Museum Commission (PHMC) are from 2001. IESI should provide a copy of PHMC's response to IESI's current (August 4, 2014) contact letter.

9. **Form D, Section I – Airports:** The letter IESI provided from PennDOT notes that the landfill expansion meets notification criteria and that a formal notice of alteration should be forwarded to PennDOT and the FAA. IESI should provide the requested documentation to PennDOT and the FAA and forward the responses to DEP.

10. **Form D, Section J – Traffic:** IESI provided a traffic study and concluded that the proposed expansion will not increase vehicular trips; although there will be deficiencies in the design year 2025, these deficiencies are not due to the expansion of the landfill; rather, they are the result of the substantial nearby developments that are under construction. IESI should provide more detailed information on the trucks that will be hauling cover soil and construction materials to the site for the Southeastern Realignment project.

11. **Form D, Section K – Zoning and Land Use:**

Question 3: IESI should provide the information requested in section 3.b, 3.c, 3.d, and 3.e.

12. **Form D, Section M – Air Quality Impact:**

Question 2: IESI did not describe the potential impacts from odors and dust. IESI should further evaluate the potential impacts from odors and dust.

Question 3: IESI does not describe any odor or dust control measures.

Question 4: IESI should indicate the Title V air quality operating permit along with any others and attach them to this section.

HARMS/BENEFITS REVIEW COMMENTS

(E) = Environmental, (SE) = Social & Economic

Harms

1. **Truck Safety and Traffic Impacts: (SE)** IESI has identified truck safety and traffic impacts as a potential harm.

Proposed Mitigation: IESI evaluated current and projected traffic volumes and potential impacts pursuant to PennDOT's regulations and guidance. Based on this evaluation, IESI has concluded that there are no adverse traffic impacts associated with the proposed project. IESI has implemented a variety of measures to minimize and mitigate known and potential harms related to truck safety, vehicle related nuisances and traffic impacts. These mitigation measures are outlined in the Transportation Compliance Plan (TCP) and/or Nuisance Minimization and Control Plan (NMCP).

DEP Review: Proper implementation of the TCP and NMCP could mitigate these potential harms. IESI should provide more detailed information on the trucks that will be hauling cover soil and construction materials to the site for the Southeastern Realignment project and provide an evaluation of the effectiveness of the TCP and NMCP in relation to truck safety and traffic impacts.

2. **Nuisances – Odors: (E)** IESI has identified odors as a potential harm. Public comment indicates that odors are an issue/concern for those in the area of the landfill.

Proposed Mitigation: IESI undertakes numerous measures to minimize and control potential nuisances associated with the operation of a solid waste disposal facility. IESI will continue to follow their mitigation measures outlined in the NMCP to address the potential for odors including employing the following: weekly inspections of cover, review of each incoming load, active gas collection and flare system, working face management (limit to 100' by 100'), odor neutralizers and leachate seep control.

DEP Review: Odors are a potential harm for any landfill facility, particularly where the landfill is situated in close proximity to residential areas. DEP's experience based on inspections and complaint investigations at IESI is that the proposed mitigation has generally been successful; however, there have been occasions when there were odors. Public comment indicates that there are frequent, even daily odors. According to DEP's records, there were 0 odor complaints in 2011, 0 in 2012, 16 in 2013, 207 in 2014 and 172 in 2015 (as of August 28, 2015). In addition, DEP issued a notice of violation (NOV) to IESI following DEP inspection conducted on April 21, 2015. The site conditions observed by DEP during the April 21, 2015 inspection and the subsequent inspection on June 24, 2015, may have contributed to off-site odors in the surrounding

community. Since receiving the NOV, IESI has implemented adjustments and operational controls that have been adequate to minimize odors from the landfill. IESI should update their NMCP to include these additional measures and implementation of the proposed intermediate cover.

3. **Nuisances - Dust: (E)** IESI has identified dust as a potential harm.

Proposed Mitigation: IESI undertakes measures to minimize and control potential nuisances associated with the operation of a solid waste disposal facility. These mitigation measures include: inspection of site for dust generation; maintenance of site access roads and use of a sweeper vehicle/water truck as needed; vegetation of disturbed areas; and review of incoming waste streams and inspection of each incoming load.

DEP Review: This is a known potential harm of landfill operations. IESI's mitigation measures have been effective at preventing off-site dust.

4. **Nuisances – Mud: (E)** IESI has identified the potential for mud to be tracked off-site as a harm.

Proposed Mitigation: IESI undertakes measures to minimize and control potential nuisances associated with the operation of a solid waste disposal facility. These mitigation measures include use of a sweeper vehicle and water truck.

DEP Review: This is a known potential harm of landfill operations. IESI's mitigation measures have been effective at preventing mud from being tracked off-site.

5. **Nuisances – Noise: (E)** IESI has identified and the potential for off-site noise is a known potential harm of a landfill operation. Public comment indicates that noise is an issue/concern for those in the area of the landfill.

Proposed Mitigation: IESI undertakes measures to minimize and control potential nuisances associated with the operation of a solid waste disposal facility. These mitigation measures include: use of mufflers on site equipment; onsite speed limit of 10mph; and adherence to hours of operation.

DEP Review: This is a known potential harm of landfill operations. IESI's mitigation measures have been effective at preventing nuisances from noise.

6. **Nuisances – Vectors: (E)** The potential for attraction of vectors and birds is a known potential harm of a landfill operation.

Proposed Mitigation: IESI undertakes numerous measures to minimize and control potential nuisances associated with the operation of a solid waste disposal facility. These mitigation measures include use of cover soils and licensed extermination services.

DEP Review: This is a known potential harm of landfill operations. IESI's mitigation measures have been effective at preventing nuisances from vectors.

7. **Nuisances – Litter: (E)** The potential for on and off-site litter is a known potential harm of a landfill operation.

Proposed Mitigation: IESI undertakes numerous measures to minimize and control potential nuisances associated with the operation of a solid waste disposal facility. These mitigation measures include: use of tarps or covers on vehicles; management of working face via small size and water spray; prompt placement of daily cover; litter fencing; and patrolling the site for litter.

DEP Review: This is a known potential harm of landfill operations. IESI's mitigation measures have been effective at preventing litter from being unsightly or leaving the site.

8. **Nuisances – Runoff: (E)** The potential for runoff and leachate seeps is a known potential harm of a landfill operation. Public comment indicates on occasion mud and debris wash from the landfill property onto Applebutter Road during storm events.

Proposed Mitigation: IESI undertakes numerous measures to minimize and control potential nuisances associated with the operation of a solid waste disposal facility. These mitigation measures include: conducting inspections and implementing the Soil Erosion and Sediment Control Plan.

DEP Review: Runoff is a known potential harm of landfill operations. IESI should propose additional mitigation to address mud and debris washing onto Applebutter Road.

9. **Nuisances – Leachate: (E)** The generation of leachate and the potential for groundwater contamination is a known potential harm of a landfill operation. Public comment indicates additional leachate generation in unlined areas of the landfill during exposure of old waste and for additional leachate flow in the detection zone of the Phase III area is also a concern.

Proposed Mitigation: IESI undertakes numerous measures to minimize and control potential nuisances associated with the operation of a solid waste disposal facility. These mitigation measures include: use of a liner system, leachate management system, groundwater monitoring system and groundwater abatement system.

DEP Review: Leachate generation is a known harm of landfill operations. IESI should propose additional mitigation to address the potential for additional leachate generation in the unlined areas of the landfill during exposure of old waste and for additional leachate flow in the detection zone of the Phase III area.

10. **Fire Risk: (E)** The risk of fires and subsurface reactions is a known potential harm of a landfill operation.

Proposed mitigation: IESI did not identify this as a harm and has not proposed mitigation.

DEP review: IESI should define the potential for these incidents, IESI's measures to monitor for and to minimize this risk, and the actions IESI would employ to mitigate a subsurface fire or reaction should one occur.

11. **Health Impacts: (E)** Lower Saucon Township requested the PA Department of Health conduct a health study to evaluate the current potential for health impacts from the IESI operation.

Proposed mitigation: IESI did not identify or propose mitigation specifically to address health concerns.

DEP review: DEP will incorporate into its review the findings of the Department of Health to determine if potential health impacts are adequately mitigated.

12. **Air Contaminants and Odors Generated During Exposure of Old Waste: (E)** Public comment indicates there is a concern that the potential for off-site air contaminants and odors will increase as a result of IESI's proposal to remove approximately 26 acres of cap from previously closed areas of the landfill thereby exposing old waste to the atmosphere.

Proposed mitigation: IESI has not identified this as a potential harm or proposed mitigation measures.

DEP review: DEP has evaluated this harm and agrees there is an increased potential for generating odors during the removal of cap from closed areas of the landfill. IESI has measures in place to minimize and control odors from the landfill; however, IESI should provide detailed information on what additional measures will be undertaken if off-site air contaminants and odors become an issue during cap removal.

13. **Visual Impacts: (SE)** Public comments indicate visibility of the landfill from the Delaware and Lehigh Canal Towpath, homes and the park in Steel City is a concern.

Proposed mitigation: IESI has not identified this as a potential harm or proposed mitigation measures.

DEP review: DEP has evaluated this harm and agrees that there is a potential for visual impact with the increase in landfill height. IESI should define this potential harm and propose appropriate mitigation measures.

Benefits that will be considered in the analysis

1. **Recycling Drop Off Containers: (E)** IESI has identified, as an Environmental benefit, the recycling drop off containers are provided at the landfill for use by the local population to promote and encourage recycling.

DEP Review: DEP believes that the recycling drop off containers is a Social and Economic benefit because IESI is providing the monetary benefit of free disposal. Because this is a service that the local community would not continue to receive without the Southeastern Realignment project, this is a Social and Economic benefit for the life of the project.

- 2. Contributions: (SE)** IESI has identified, as a Social and Economic benefit that they provide free year round white-goods disposal to the residents of Lower Saucon Township.

DEP Review: DEP believes that the free white-goods disposal is a Social and Economic benefit because IESI is providing the monetary benefit of free disposal. Because this is a service that the local community would not continue to receive without the Southeastern Realignment project, this is a Social and Economic benefit for the life of the project. [Berks County v. Department of Environmental Protection, 894 A.2d 183 (Pa. Cmwlth. 2006)]

- 3. Benefits to Lower Saucon Township: (SE)** Lower Saucon Township, the host for IESI, will continue to receive host benefit fees in the amount of \$4.84/Ton for municipal solid waste and \$7.01/Ton for residual waste. The Township receives approximately \$2.1 million a year of unencumbered funds for its use, and amounts to approximately 30% of the total Township operating revenue.

DEP Review: The host fees are based on tonnages and are paid on a quarterly basis and there is no guaranteed minimum amount. This is considered to be a Social and Economic benefit for the life of the Southeastern Realignment project. [Berks County v. Department of Environmental Protection, 894 A.2d 183 (Pa. Cmwlth. 2006)]

Benefits that require additional information to be considered in the analysis

- 1. Benefits to Lower Saucon Township: (SE)** Lower Saucon Township will have a local facility that is capable of handling the municipal and residual waste disposal needs of its residents, businesses and industries.

DEP Review: Additional capacity at a local facility in and of itself is not considered to be a benefit. IESI has not demonstrated the need for additional waste capacity in Lower Saucon Township. In order for this to be considered to be a benefit, IESI must demonstrate that an actual hardship to the local community, considering alternatives to eliminate any hardships, will exist if the Southeastern Realignment project is not permitted.

- 2. Local Benefits Attributable to Operating Expenses: (SE)** IESI has identified that the continued operation of the landfill results in additional purchases and use of local and regional goods, services and supplies. These include fuel, piping, supplies, quarry products, environmental control products and systems, vehicle services, tires, rental

equipment, professional consulting and testing services, gas management services, parts and inventory, facility landscape services and computers and office supplies. These expenditures are projected at a rate of approximately \$1,585,063 per year for the duration of the proposed project.

DEP Review: IESI does not identify the radius of area where the local and regional goods, services and supplies come from. IESI should define more specifically the local expenditures that would benefit those impacted by the harms/potential harms of the landfill.

3. **Local Benefits Attributable to Capital Expenditures: (SE)** IESI has identified the project will result in an increase in local spending on capital improvements in terms of equipment purchases and site development costs totaling an estimated \$37.3 million during the proposed additional 5.5 years of additional site life. These expenditures average approximately \$6.7 million per year, of which \$2.5 million are projected to be made within the local area.

DEP Review: IESI does not identify the radius of area where the local purchases come from. IESI should define more specifically the local expenditures that would benefit those impacted by the harms/potential harms of the landfill.

4. **Local Benefits Attributable to Payroll Payments: (SE)** IESI has identified that the project will result in direct employment for a number of area residents and indirect employment through locally purchased supplies and services. The economic benefits attributed to payroll taxes associated with the Southeastern Realignment project is approximately \$715,000 per year, and will contribute over the 5.5 year extended site life.

DEP Review: Indirect employment is not considered a benefit of the project. The continued employment of landfill employees will be considered to be a Social and Economic benefit of the project. IESI should better define and quantify this benefit.

5. **Benefits Attributable to Tax Revenues: (SE)** IESI has identified that the public receives economic benefits from the landfill, which include payroll and taxes paid to the local school district on landfill property and sales taxes in the amount of \$60,000 per year. The proposed Southeastern Realignment project will continue these benefits over the 5.5 year extended site life.

DEP Review: Property taxes are paid by any land owner and with or without the expansion IESI would have to pay property taxes based on the value of the acreage of property that IESI owns. IESI should provide information that quantifies the value of the IESI property with and without the expansion. Only the increased tax revenue caused by the Southeastern Realignment project may be considered a benefit.

6. **Emergency Management Capabilities: (SE)** IESI has identified that the landfill has extensive and well trained emergency management personnel on-site, as well as readily available heavy equipment. These staff and equipment have been available to the

community to assist in times of need, such as during floods, snow storms, and other emergencies.

DEP Review: The potential benefits described will be considered minimal for the life of the landfill. IESI should provide documentation that shows when/where/how their personnel and equipment have assisted the community in times of need.

Benefits that will not be considered in the analysis

1. **Maximizing Use of Current Disposal Area: (E)** IESI has identified, as an Environmental benefit, the extended operating life of an existing, permitted municipal waste landfill, allowing for continued provision of all of the environmental services which the site provides by maximizing use of the current disposal area without the need to create or improve existing public and private infrastructure.

DEP Review: Maximizing the disposal capacity within the currently permitted area is not a benefit. It is an action that avoids or minimizes the extent of the environmental and social and economic harms. DEP's Technical Guidance Document No. 254-2100-101 states that an activity or mechanism which reduces or prevents harm created by the facility does not amount to a benefit.

2. **Beneficial Use of Landfill Gas: (E)** IESI has identified, as an Environmental benefit, that they provide landfill gas to a third party for generation of electricity for public consumption.

DEP Review: Landfills are required to control gas that is generated by operation of their facilities. DEP's Technical Guidance Document No. 254-2100-101 states that an activity or mechanism which reduces or prevents harm created by the facility does not amount to a benefit. Beneficial reuse of landfill gas is mitigation of gas that is created by the landfill and an expected business practice and as such is not considered to be a benefit of the Southeastern Realignment project.

3. **Contributions: (SE)** IESI has identified, as a Social and Economic benefit that they support many community activities in a variety of ways, including through direct financial support to civic clubs, libraries, and other local institutions. The landfill also donates to a variety of local charities and supports their fund raising events, such as the local Fire Department, American Cancer Society fund drive, and Community Earth Day events. In addition, the facility provides ten (10) \$1,000 environmental scholarships each year to students from area high schools towards their college education.

DEP Review: Charitable contributions and scholarships are not considered to be benefits of the Southeastern Realignment project. [Berks County v. Department of Environmental Protection, 894 A.2d 183(Pa. Cmwlth. 2006). Eagle Environmental II, L. P. v. Department of Environmental Protection, 884 A.2d 867(Pa. 2005)]

The Department is requesting IESI to provide a revised application within 90 days. IESI should include additional information as identified and clarify any issues that it feels the Department does not view correctly. A public hearing will be scheduled after receipt of your response to this letter. If you have any questions, please contact me at the above referenced address or telephone number.

Sincerely,



Jeffrey Spaide, P.E.
Environmental Engineer Manager
Waste Management Program

cc: Martin and Martin, Incorporated
Lehigh Valley Planning Commission
Northampton County Council
Lower Saucon Township
Senator Lisa M. Boscola
Representative Robert L. Freeman
Representative Justin J. Simmons