

Hanover

Engineering Associates Inc



January 29, 2016

OUTLINE OF MAJOR COMMENTS

Refer to full letter of January 27, 2016
From Hanover Engineering Assoc., Inc.

IESI Bethlehem Landfill
Southeastern Realignment
Phase I – EAP Review
Hanover Project LS15-19

Wetlands (Form D)

While the “functions and quality” of the wetlands are considered by Roemer not to be “exceptional,” the regulatory status of the wetlands as EV may depend on other criteria. For purposes of the regulations that govern water obstructions and encroachment (which include an activity which changes, expands or diminishes the course, current or cross section of a waterbody, including a wetland), exceptional value wetlands include:

105.17(1)

(iii) Wetlands that are located in or along the floodplain of the reach of a wild trout stream or waters listed as exceptional value under Chapter 93 (relating to water quality standards) and the floodplain of streams tributary thereto, or wetlands within the corridor of a watercourse or body of water that has been designated as a National Wild or Scenic River in accordance with the Wild and Scenic Rivers Act of 1968 (16 U.S.C.A. § § 1271—1287) or designated as Wild or Scenic under the Pennsylvania Scenic Rivers Act (32 P. S. § § 820.21—820.29).

The current water quality regulatory status of the Saucon Creek and its tributaries should be confirmed, and consideration given to evaluating the potential for site activities and disturbance to further diminish the wetlands, if it is not obvious that there will be no impact.

Visibility from Delaware and Lehigh Canal Towpath

The maximum height of topsoil stockpiles on Cell 4B and 4D should be provided and checked for compliance.

S

ROUTING

County Manager

Asst. Mgr.

Zoning

Finance

Police

P. Works

P/C

P & R

EAC

Engineer

Solicitor

Planner

Legal

EMC

Other

Other

Web

Impact on Habitat for Long Ear Bat

Will IESI harvest all trees or dead snags greater than 5 inches in diameter at a breast height between November 1st and March 31st, as recommended?

Storm Water Runoff

The bend in Swale “N” at the east end of the proposed MSE wall should be checked for stability in times of high flow velocities.

Additional Trucks on Applebutter Road

Accident histories be submitted and reviewed to determine any crash patterns attributable to truck traffic. Also, the adequacy of roadway signage, particularly advance warning signs for roadway curvature, should be evaluated for truck traffic. If deficiencies are found, the mitigation measures should be proposed. PennDOT comments should be sought, received and considered.

Township Land Use Approvals

The Township is on record as disagreeing with this claim. Consistent with the Township's previous position before the Zoning Hearing Board, the Township Solicitor does not agree that Special Exception approval was granted for landfill uses upon 206 acres.

Odor Control

The "Odor Control Plan" referenced in IESI's letter of December 28, 2015 should be provided for review prior to permit issuance. It is recommended that it be as specific as possible and include all the inspection and identifications, testing, reporting, mitigation methods and timing as now described by IESI in many different supporting documents.

With the expansion of the landfill to the east, the applicant and DEP should consider whether or not the single flare and associated blowers at their current location, will create sufficient draw from the western dome and the new proposed eastern dome being created by Cell SE 1-A and SE1-B.

Under a separate Land Use Zoning Special Exception application, the TCC had the following comments.

The PPC Attachment 4 entitled the "Waste Relocation Procedures" does include many specific actions that IESI intends to take to protect the environment, but some issues are still a concern. These are listed herein:

- a. Page WRP-2 in "Cap Removal" states that the "Intermediate Cover beneath the membrane will remain in place." How would this be possible in areas where the old waste is being excavated and relocated?
- b. Page WRP-6 in "Odor Control" states that the Contractor shall "Minimize the exposed area of refuse during the relocation operations." It is recommended that a maximum area of exposure be identified.
- c. Page WRP-8 in "Suspect Material Encountered during Refuse Excavation" describes the identification and remediation of uncovered waste that may need special care. It is recommended that IESI consider retaining an independent consultant to be on site on a continuous basis during all waste excavation and relocation operations to observe, record and make recommendations on specific safety, testing, odor control, handling care and relocation procedures.

Surface monitoring of landfill gases has identified high levels of methane that are escaping to the air. The concern is the ongoing exceedances across the site, regardless of the locations where the exceedances occur and the post repair methane readings. It is acknowledged that specific pinpoint locations are repaired and retested on a 10 and 30 day retest. The point is that in all Surface Emission Monitoring events over the last several years, additional, or repeat locations (that were “permanently repaired” in a past quarter) exceed the 500 ppm in the initial monitoring, before repairs. Continual quarterly repair of multiple gas breakthroughs, some at methane emission levels which exceeded 10,000 ppm, and numerous levels over 1,000 ppm, continue to be a significant concern, as well as the odor complaints.

Leachate in the Detection Zone

The Township Technical consultants are not able to concur that the flow in the LZ-8 can be confirmed as stormwater, and that there is zero risk of negative future impact. Whether the source of the contaminated water is stormwater, groundwater or leachate, there is evidence of a performance/integrity issue with the liner system in the Phase III which is resulting in flow of a contaminated water from the detection zone. The Owner and DEP should review options for minimizing the possible future negative impact on groundwater quality.

Emergency Response-Fire.

Documentation is to be provided by IESI to demonstrate that the City of Bethlehem still offers firefighting protection.

Closure Plan - Attachment 15

The Final Cap schedule for each cell should be provided. Also please refer to additional comments entitled “Phase I-EAP Review Supplemental Operation and Closure Plan Comments” dated January 29, 2016. These were not included with the TCC review letter of January 27, 2016.

jbb:lbb

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IESI Bethlehem Landfill Southeastern Realignment
Phase I-EAP Review
Supplemental Comments on the Operations Plan and Closure Plan
January 29, 2016

1. The Operations Plan for the site, Form 12R was not submitted with the application. IESI states in their initial submission narrative of December 2014 that daily operations will not change. Operations will change significantly from the last expansion, including significant refuse relocation and peeling off previous capped areas, creating potential for odor and leachate management issues from these activities. These are essentially daily operations associated with ongoing site development that will be occurring over the entire expansion lifetime in addition to the basic receiving and burying of incoming daily refuse. During this latest review of the IESI responses and additional or revised information, a new "Waste Relocation Plan", a new "Nuisance Minimization and Control Plan", a new "PPC Plan", and a new "Odor Control Plan" is being proposed but has not yet been submitted. All of these ancillary plans address daily operations of developing the site that have not occurred on this level in the past. It is believed that a new and updated Form 12R be prepared and submitted specifically to this expansion. The new Form 12R should specifically incorporate the above referenced four (4) additional plans that have been (or is proposed) by the applicant to support this permit application. In this way, the daily implementation of all of these Plans are incorporated into the Operations Plan. These then would be as basis for determining compliance during any DEP or Host Municipal inspection on any day. In the event PADEP does not require a new Operation Plan be submitted, the above four plans should be specifically identified in the permit as conditions of issuance, or at a minimum, as separate line items constituting the contents of the application that would support the permit, if issued.

2. An updated Closure Plan Narrative, along with the revised bonding calculations should incorporate a schedule and cost of daily, weekly, monthly, quarterly and post rainfall inspections to regularly check security breaches of the fencing, cap integrity, odors, slope and MSE walls integrity, and stormwater basin and conveyance systems proper functioning for the length of the post closure care period. Costs should include reimbursement to the Township for ongoing Township inspections during this period. This is particularly important to help insure the long term operation of the storm water channel and piping that catch stormwater and direct it to the south side of the landfill.