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October 13, 2023

Mr. Mark Hudson, Manager
Lower Saucon Township
3700 Old Philadelphia Pike
Bethlehem, PA 18015

**Re: Bethlehem Landfill Phase V Expansion – Land Use of Regional Significance
Lower Saucon Township
Northampton County**

Dear Mr. Hudson:

The subject application is considered a Land Use of Regional Significance under *FutureLV: The Regional Plan* in the Landfills and other Solid Waste Facilities category. The Lehigh Valley Planning Commission (LVPC) will consider the application at its Comprehensive Planning Committee and Full Commission meetings, pursuant to the requirements of the Pennsylvania Municipalities Planning Code (MPC). Discussion on agenda items largely happens during the Committee meeting and we encourage your virtual participation. The LVPC will issue a follow-up letter after the Commission meeting if Commission members have any additional comments. Meeting participation details are below:

- LVPC Comprehensive Planning Committee Meeting
 - o October 24, 2023 at 11:00 AM
 - o <https://lvpc.org/meetings.html>
- LVPC Full Commission Meeting
 - o October 26, 2023 at 5:30 PM
 - o <https://lvpc.org/meetings.html>

The subject applicant proposes an 86-acre expansion of the existing landfill located at 2335 Applebutter Road (parcel numbers P7 5 33, N8 14 15, N8 14 1B, N8 14 1A, N8 14 1 and N8 14 20). A lot consolidation is also proposed to facilitate the expansion. Landfills and Waste Disposal Facilities are high intensity land uses that have significant social and environmental impacts. Impacts to residents and/or the environment resulting from expanding and increasing operation must be cautiously scrutinized and mitigated to 'reduce greenhouse gas emissions' (of *FutureLV* Policy 3.4), 'provide environmentally responsible and economical solid waste disposal and recycling', 'protect the quality and quantity of surface water and groundwater' and 'improve regional air quality' (of *FutureLV* Policy 3.2) and promote safe, healthy, inclusive and livable communities (*FutureLV* Goal 5).

While the area of the landfill currently in operation is located within the Development area of the General Land Use Plan of *FutureLV: The Regional Plan*, the proposal conflicts with *FutureLV* because most of the area proposed for expansion of the landfill to the northeast is within a Character-Defining area of the General Land Use Plan, representing the natural and scenic character of the Lehigh Valley.

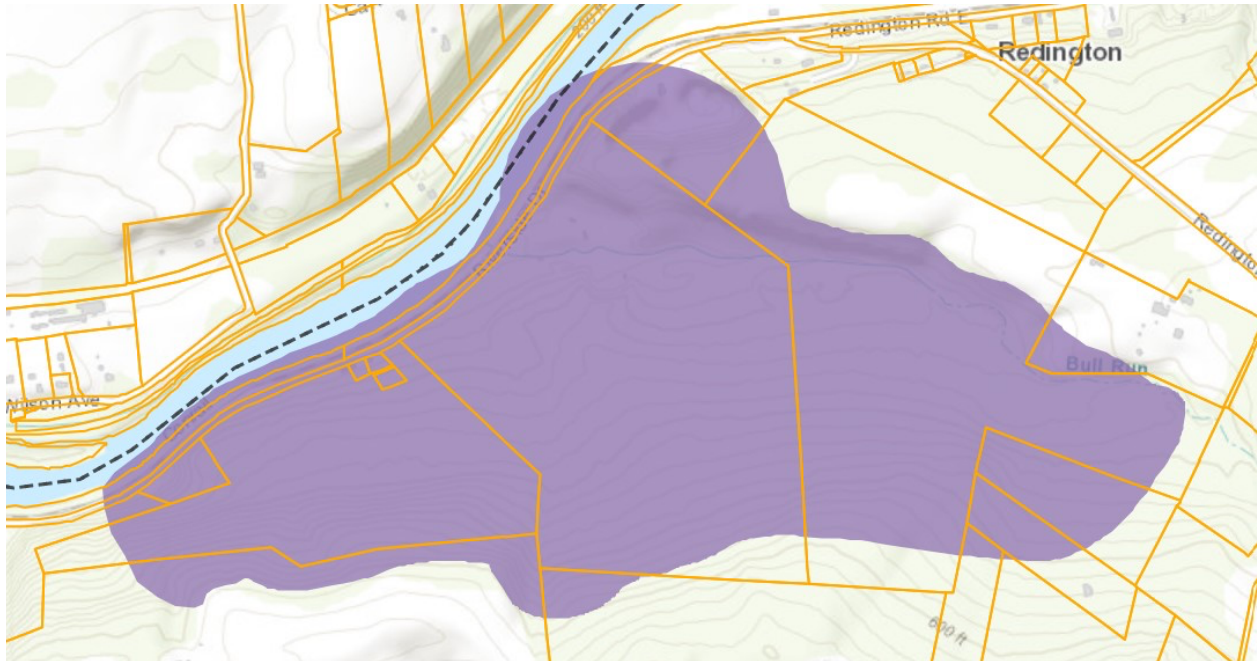
Natural Resource Conservation

The Natural Resources Plan of *FutureLV* identifies natural features for preservation within the proposed expansion area, including woodlands, steep slopes of 15-25% grade and the Bull Run Natural Heritage Inventory Core Habitat:



The Bull Run Natural Heritage Inventory Core Habitat is shown below in purple and is a Natural Heritage Core Habitat of State significance. The area includes a relatively diverse and richly forested habitat along the Lehigh River. According to the Natural Heritage Inventory (NHI) of Lehigh and Northampton Counties (2013), maintaining the current hydrologic regime is critical to the persistence of the community and rare species at this site. Additionally, fragmenting the existing forested areas should be avoided. Landfill expansion in this area is strongly discouraged to 'preserve natural, recreational, and scenic assets' (of Policy 3.1). The existing woodlands in this area further mitigate environmental stress by reducing stormwater runoff, filtering groundwater recharge, controlling erosion and sedimentation, moderating local microclimates and purifying air.

The types of uses recommended in High Preservation Priority areas are parks and open space, woodlands, agriculture, and low-intensity, limited scale development that preserves natural and scenic resources.



Bull Run Natural Heritage Inventory Core Habitat

Conservation Easements

The submitted plans depict an existing conservation easement to the north and east the proposed landfill expansion. The National Conservation Easement Database also identifies a conservation easement to the northeast of the proposed project site. In 2001, the Pennsylvania Conservation and Preservation Easements Act (P.L. 390, No. 29) was created to enable conservation easements, which are legal agreements between a landowner and a land trust or government agency that permanently limit land uses in order to protect its conservation values. In addition to conserving natural resources for the purposes mentioned above, the LVPC strongly recommends confirmation that the proposal does not infringe upon any legal agreements in the interest of the fiscal health and sustainability of the Township (of Policy 4.6).

Landscaping and existing tree line is proposed between the area of the proposed landfill expansion and the conservation easement area. The submitted plans do not depict woodlands in the Existing Features plan sheets, however aerial imagery dated May 2023 shows existing tree cover in those areas. The LVPC strongly recommends retention of existing woodland areas rather than tree removal and landscaping plantings to better serve as a buffer between development and the conservation easement area, and to 'maximize preservation of woodlands and critical habitats' (of Policy 3.1).

Federal Emergency Management Agency (FEMA) Flood Zone

A FEMA flood zone, with a 1% annual chance of flooding, runs through the northernmost parcel (N8 14 1). The existing riparian corridor buffer should continue to be maintained as a hazard mitigation step which supports 'safe and secure community design and emergency management' (of Policy 5.1).

Traffic Impact Study

A Transportation Impact Study (TIS) was included with the proposal, dated December 2022. The trip generation calculations estimate a daily total of 102 trips.

There is currently only one access to the site from Applebutter Road. Another driveway is proposed with the submitted plan to the east of the original driveway, which opens onto Applebutter Road. The addition of the proposed second driveway would improve this emergency vehicle access, which would ‘promote safe and secure community design and emergency management’ (of Policy 5.1). The addition of a second access point would also allow emergency response to access the site if the primary entrance point was obstructed. As the proposed expansion will not substantially increase the number of vehicles entering and leaving the location, the additional driveway could be utilized strictly for emergency access.

It should be taken into consideration that Freemansburg Bridge, which spans the Lehigh River, is currently in the development stage of a bridge preservation improvement project as listed in the Long-Range Transportation Plan of *Future LV: The Regional Plan*.

Township Comprehensive Plan

Additionally, the proposed development conflicts with the Township’s recently updated comprehensive plan, Our Resources, Our Valley Multi-Municipal Comprehensive Planning in Pennsylvania’s Saucon Valley (pages 1-12). The Plan identifies the Township’s natural resources, along with its other cultural and historic assets, as significant components of the region’s future economic development. The proposal further conflicts with the Plan’s stated goals to:

- ‘Balance development and conservation initiatives in order to maintain the ambiance and quality of Saucon Valley’s distinct cultural landscapes: small town, suburban and rural’;
- ‘Enhance the continuity, visibility and inter-connectivity of the Valley’s cultural, natural and historical resources’.

Stormwater Review

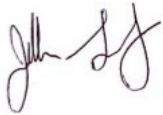
The project site is located within both the Saucon Creek and Fry’s Run watershed. This watershed has a fully implemented Act 167 Stormwater Management Ordinance. Comments related to our review of the project’s stormwater management plan are included as attachment 1.

Municipalities, when considering subdivision/land developments, should reasonably attempt to be consistent with *FutureLV: The Regional Plan*, as required by the Pennsylvania Municipalities Planning Code (MPC) [Article 1§105, Article III§303, §304 & §306(a), Article VI§603(j)]. The LVPC review does not include an in-depth examination of plans relative to subdivision design standards or ordinance requirements since these items are covered in the municipal review.

The LVPC has copied appropriate representatives from all adjacent municipalities in order to further 'coordinate land use decisions across municipal boundaries' (of Policy 1.4).

Feel free to call me if you have any questions about this review.

Sincerely,



Jillian Seitz
Senior Community Planner



Susan Rockwell
Senior Environmental Planner



Bambi Griffin Rivera
Senior Community and Regional Planner



Evan Gardi
Transportation Planner

cc: Bethlehem Landfill Company, Applicant;
Martin & Martin, Inc. Joseph McDowell, PE, Project Engineer/Surveyor;
Brien Kocher, Township Engineer;
Denjam Khadka, LVPC Senior Civil/Environmental Engineer;
Geoffrey A. Reese, PE, LVPC Master Planner and Engineer
Cathy Hartranft, Hellertown Borough Manager;
Darlene Heller, City of Bethlehem Planning Director;
Trisha Lang, Upper Saucon Township Planning Director;
Amanda Jensen, Bethlehem Township Planning Director
Mikal Sabatine, Williams Township Manager;
Jonathan Itterly, Freemansburg Borough Manager

ATTACHMENT 1

Act 167 Drainage Plan Review

October 13, 2023

Re: Bethlehem Landfill – Phase V Expansion
Plans Dated September 11, 2023
Lower Saucon Township
Northampton County

The proposed storm drainage concept presented in the plans and storm drainage calculations dated September 11 2023 has been reviewed for consistency with the *Saucon Creek Watershed Act 167 Storm Water Management Ordinance*, April 1991 and the *Delaware River Sub-Basin 2 and Lehigh River Sub-Basin 5 (Fry's Run) Act 167 Storm Water Management Ordinance*, February 1999. Checklists of the Act 167 review items for both watersheds are attached for your information. As indicated on the checklists, each item of the Drainage Plan has been reviewed for consistency with the Act 167 Ordinances. A brief narrative of the review findings is as follows:

The proposed development is located within drainage districts 188, 189 and 196 of the Saucon Creek Watershed and districts 50, 51 and 52 of the Lehigh River Sub-Basin 5 Watershed as delineated in each Act 167 Plan. As such, the runoff control criteria for district 188 are a 30% Release Rate for the 2-year storm and a 50% Release Rate for the 10-, 25- and 100-year return period storms. The runoff control criterion for districts 189 and 196 is a 100% Release Rate. The runoff control criteria for district 50 are a 30% Release Rate for the 2-year storm and a 100% Release Rate for the 10-, 25- and 100-year return period storms. District 51 is Conditional No Detention I, and district 52 is Conditional No Detention II. Based on review of the plans and calculations, the following deficiencies are noted. Downstream capacity for the flows from the basin 7 and basin 8 spillways should be demonstrated. The outfall from Basin 7 creates a new concentrated discharge point. The pre-development boundaries between drainage areas 4 and 6 and between drainage areas 6 and 2 do not seem justified by the contours. The post-development boundary between drainage areas 8B and 12B does not seem justified by the contours. The plans should demonstrate where the meadow and open space cover will be located in drainage areas 9, 10 and 12. The pre-development time of concentration for drainage area 11 does not seem to begin at the high point of the drainage area. The path does not break out areas of different slope within the concentrated flow. The pre-development time of concentration path for drainage area 12 does not break out areas of different slope within the concentrated flow. The post-development time of concentration paths are not shown on the drainage area map for drainage area 8B and 12B. The web soil survey identifies UfB as hydrologic soils group B not C as used in the calculations. A minimum detention basin outlet orifice of 3 inches should be provided. The outlet control structure data for basins 2 and 6 are not included in the calculations or on the plans. The calculations provided do not include freeboard calculations. Basins 7 and 8 appear to not meet the 100-yr requirement for 0.5 feet from the water surface to the spillway invert. Basin 8 has flow out of the spillway for the 100-year routed storm and therefore does not meet the freeboard requirement. Therefore, the Drainage Plan has been found to be inconsistent with the Act 167 requirements.

Note that only those details of the Drainage Plan included on the checklists have been covered by this review. Therefore, notable portions of the Drainage Plan not reviewed include any aspect of the post-construction storm water management plan concerning water quality, the details and design of any proposed water quality

BMPs, the Erosion and Sedimentation Control Plan and the details of the runoff collection system (piping). These items are reviewed by the municipal engineer and/or others, as applicable.

Once the outlined issues have been addressed, the revised plans and calculations will need to be resubmitted to our office. Please call with any questions regarding these comments.

Sincerely yours,

A handwritten signature in blue ink that reads "Geoffrey A. Reese". The signature is fluid and cursive, with the first name being more prominent.

Geoffrey A. Reese, PE
Master Planner and Engineer

A handwritten signature in blue ink that reads "Denjam Khadka". The signature is cursive and somewhat stylized, with the first name being the most legible part.

Denjam Khadka
Senior Civil/Environmental Engineer

Attachment

LVPC ACT 167 REVIEW CHECKLIST

Development Name: Bethlehem Landfill – Phase V Expansion
Municipality: Lower Saucon Township
Date: October 13, 2023

Watershed: Saucon Creek
Reviewer: Denjam Khadka and Geoffrey A. Reese, PE
Checked by: _____

Ordinance Reference	Item	Consistency w/Ordinance			Comment
		Yes	No	N/A	

301.A-G. General storm water management requirements / X / See Attachment 1 for details.

H. Consideration of volume controls..... / X / Consideration preferred, not required.

302.A,B. Applicable Storm Water Management Provisions

Subarea(s)	188	189	196	
Criteria	30%/50% RR	100% RR	100% RR	

Criteria Key: RR = release rate; PND = provisional no detention

303.A. Design consistency with applicable management provisions from 302.A. and B..... / X / See Attachment 1 for details.

B. Mapping of Storm Water Management District Boundaries X / /

C. Downstream capacity analysis / X / See Attachment 1 for details.

D. Multiple discharge points within a single subarea..... / / X

E,F. Multiple discharge points within multiple subareas..... / X / See Attachment 1 for details.

G. Documentation of “no harm” downstream..... / / X

H. Regional or subregional detention analysis / / X

I. Capacity improvements analysis / / X

304.A. Computation method (rational or soil-cover-complex)..... X / / Soil-cover-complex method used.

B. Verification of detention design by routing..... X / /

Check rational method detention volume vs. TR55 / / X

C. Minimum detention pond freeboard specifications / X / See Attachment 1 for details.

D. Soil-cover-complex method design rainfall..... X / /

E. Rainfall intensities for rational method..... / / X

F. Curve Numbers for soil-cover-complex method / X / See Attachment 1 for details.

G. Runoff coefficients for the rational method / / X

H. Manning equation to calculate watercourse capacity X / /

403. Drainage Plan Contents / X / See Attachment 1 for details.

LVPC ACT 167 REVIEW CHECKLIST

Development Name: Bethlehem Landfill – Phase V Expansion Watershed: Fry's Run and Lehigh River Sub-Basin 5
Municipality: Lower Saucon Township Reviewer: Denjam Khadka and Geoffrey A. Reese, PE
Date: October 13, 2023 Checked by: _____

Ordinance Reference	Item	Consistency w/Ordinance			Comment
		Yes	No	N/A	
301.A-G.	General storm water management requirements	/	X	/	See Attachment 1 for details.
	H. Consideration of volume controls.....	/	X	/	Consideration preferred, not required.

302.A,B. Applicable Storm Water Management Provisions

Subarea(s)	50	51	52	
Criteria	30%/100% RR	CND I	CND II	

Criteria Key: RR = release rate; CND I = conditional no detention I; CND II = conditional no detention II

303.A.	Design consistency with applicable management provisions from 302.A. and B.....	/	X	/	See Attachment 1 for details.
B.	Mapping of Storm Water Management District Boundaries	X	/	/	
C.	Downstream capacity analysis	/	X	/	See Attachment 1 for details.
D.	Multiple discharge points within a single subarea.....	/	/	X	
E,F.	Multiple discharge points within multiple subareas.....	/	X	/	See Attachment 1 for details.
J.	Documentation of no increase in peak or volume	/	/	X	
L.	Documentation of "no harm" downstream.....	/	/	X	
M.	Regional or subregional detention analysis	/	/	X	
N.	Capacity improvements analysis	/	/	X	
304.A.	Computation method (rational or soil-cover-complex).....	X	/	/	Soil-cover-complex method used.
B.	Verification of detention design by routing.....	X	/	/	
C.	Minimum detention pond freeboard specifications	/	X	/	See Attachment 1 for details.
D.	Minimum size orifice or greater proposed.....	/	X	/	See Attachment 1 for details.
E.	Soil-cover-complex method design rainfall.....	X	/	/	
F.	Rainfall intensities for rational method.....	X	/	/	
G.	Curve Numbers for soil-cover-complex method	/	X	/	See Attachment 1 for details.
H.	Runoff coefficients for the rational method	X	/	/	
I.	Volume control storage volume.....	/	/	X	
J.	Common time of concentration	/	/	X	
K.	Manning equation to calculate watercourse capacity	X	/	/	
403.	Drainage Plan Contents	/	X	/	See Attachment 1 for details.