



April 1, 2021

Wendy Marburger, Chief Operating Officer
Delaware County Solid Waste Authority
583 Longview Road
Boyertown, PA 19512

Re: Environmental Assessment
Major Permit Modification
Southern Area Landfill Expansion
Rolling Hills Landfill
Permit No. 100345
APS No. 981697
Authorization No. 1253247
Earl Township, Berks County

Dear Wendy Marburger:

The Department of Environmental Protection (DEP) has completed its environmental assessment review of Delaware County Solid Waste Authority's application for expansion of Rolling Hills Landfill. The environmental assessment is required pursuant to the Municipal Waste Regulations, particularly 25 Pa. Code §§ 271.126-127. DEP has concluded that Delaware County Solid Waste Authority has demonstrated that the proposed mitigation measures will adequately protect the environment and public health, safety, and welfare. DEP has also concluded the benefits of the project clearly outweigh the known and potential harms. A summary outlining the DEP's review and analysis of the environmental assessment is enclosed.

DEP will complete the technical review of this permit application and will forward any questions or comments to you if necessary.

I hope that you find this information helpful in understanding the permit review process. If you have any questions regarding this, please contact John Oren at joren@pa.gov or 717.705.4907.

Sincerely,

Anthony L. Rathfon

Anthony L. Rathfon
Program Manager
Waste Management Program

cc: Earl Township Supervisors
Berks County Planning Commission
Mike Rudy, BAI Group LLC

Delaware County Solid Waste Authority

Rolling Hills Landfill

Southern Area Landfill Expansion

Project Description

Rolling Hills Landfill (RHL) is an existing municipal waste landfill located in Earl Township, Berks County. On November 14, 2018, the Department of Environmental Protection (DEP) received a major permit modification application from Delaware County Solid Waste Authority (DCSWA) for landfill expansion at RHL. The major permit modification proposes to expand the landfill via construction of a soil berm that would add 8,841,696 cubic yards of disposal capacity. The proposed expansion would not increase the currently permitted maximum elevation, disposal area footprint, property boundary or daily volume of waste accepted. The proposed expansion would add approximately 10.4 years of waste disposal capacity to the landfill.

On November 28, 2018, DEP determined that the application was administratively complete. On April 2, 2019, DEP provided DCSWA with comments received from the Department of Transportation (PennDOT) pertaining to the scope of the traffic study submitted in the expansion application, and on May 23, 2019, DEP sent the first environmental assessment review letter. DEP received additional traffic study information from DCSWA's consultant, Trans Associates, Inc., on July 24, 2019, and on September 9, 2019, DEP provided DCSWA comments received from PennDOT pertaining to the additional traffic information. On October 10, 2019, PennDOT hosted a meeting with DEP and DCSWA and their consultants, to discuss the status of the review of the traffic study, and PennDOT's comment's and concerns with the scope of the study for the proposed expansion. DEP received additional traffic information from DCSWA's consultant, Trans Associates, Inc., on November 18, 2019, and provided the information to PennDOT for review. On January 31, 2020, DEP received PennDOT's review comments and provided them to DCSWA for response on February 7, 2020. Trans Associates, Inc. provided a response to PennDOT's comments on February 13, 2020, and followed up with the submission of a revised Transportation Impact Study to DEP on April 10, 2020. PennDOT reviewed the new Transportation Impact Study and provided comments to DEP on June 4, 2020. Trans Associates, Inc. provided DEP a response to PennDOT's review on October 14, 2020, and on November 5, 2020, PennDOT completed its review of the Transportation Impact Study and found it acceptable.

Environmental Assessment Process

25 Pa. Code § 271.126 and § 127 (relating to environmental assessments) require that an applicant conduct an environmental assessment and demonstrate that the benefits of the project to the public clearly outweigh the known and potential environmental harms that will remain after the proposed mitigations. The benefits of the project can be social and economic, and/or environmental. Social and economic (SE) benefits are evaluated after offsetting them with SE harms. Environmental harms are evaluated after offsetting them with acceptable mitigation plans. To determine whether an impact is a harm or a benefit, DEP compares the applicant's proposal to the conditions that would exist if the project did not move forward. The remaining environmental harms are then balanced against the benefits to the public to determine if the benefits clearly outweigh the harms. Therefore, the revised proposal from the applicant is compared to the conditions that would exist if the entire project did not move forward. The revised proposal is not compared to the original proposal.

DEP, after consultation with appropriate government agencies and potentially affected parties, evaluated the proposed project to determine whether it has the potential to cause environmental harm. Where appropriate, past performance is used to predict future conditions related to a harm or benefit. In this document, DEP provides its analysis of the known and potential environmental harms that will remain after implementation of the proposed mitigations and whether the benefits of the proposed project clearly outweigh the remaining harms.

Each harm is discussed individually below to determine if it has been fully mitigated. If the harm is fully mitigated, that harm is not included in the balancing portion of this document. If there is harm remaining after mitigation, that remaining harm is included in the balancing. The balancing looks at the individual and collective impacts of all the harms and the benefits to determine whether the applicant has demonstrated that the total effect of the project is such that the benefits clearly outweigh the harms.

Benefits to the public must be benefits that would occur if the project moved forward; benefits cannot be speculative. For example, the payment of host municipal fees is considered a benefit. Harms are identified as "known harms" or "potential harms." A known harm is one that DEP feels is certain to occur in the future. For example, an increase in trash truck traffic is often considered a known harm for landfill projects that increase the average daily volume. A potential harm is one that might not occur given the right circumstances but has the potential to occur under other circumstances. For example, assuming that strong mitigation measures are proposed, litter problems may not occur at a particular site, if all of the mitigations are diligently implemented and the topography of the site does not change. However, litter problems may occur as the height of the landfill increases due to increasing winds, which may make the proposed mitigations at that site less effective. A known harm carries greater weight than if that same harm were a potential harm for a particular project.

The duration, frequency, and intensity of the benefits and the harms were evaluated. For this discussion, duration refers to how long a harm or benefit continues. Frequency refers to how often it will occur. Frequency can be measured as times per day, week, year, or it can be

constant. Intensity refers to how much the harm or benefit will be if or when it occurs. For example, a loud noise is considered of greater intensity than a softer noise.

In addition, the number of people impacted by a benefit or harm is also considered. For example, a benefit that affects a large number of people who are impacted by the project is considered a greater benefit than one that just impacts a few people.

Occasionally, these factors can have multiple implications for a particular harm or benefit. As an example of this, the duration of noise from back-up alarms is twofold. The duration is the time that the equipment is actually backing up and the beeping noise is actually heard. Duration also refers to overall length of time that equipment with backup alarms will be needed at the landfill, i.e., until the landfill is closed permanently. The frequency refers to how many times the equipment backs up. With many pieces of equipment operating, the frequency might be considered constant during operating hours. The intensity is how loud and disruptive the alarm is. The noise harm is considered to be greater as more people can hear it. As another example, the duration of gas emissions, if unrecovered, would be decades, and maybe longer. The frequency would be constant. The intensity would vary depending on the stage of decomposition of the waste. This harm would be considered to be greater if the number of people affected by the gas emissions were greater.

The sensitivity of receptors is also considered. For example, if the same harm impacts children more than adults, and the proposed project is in an area with a high population of children, that harm is considered more severe than if children were not in the nearby population.

It should be noted that the words “duration,” “frequency,” and “intensity” will not be used to describe every harm and benefit in the analysis. However, each concept, as described above, is discussed when appropriate.

Harms and Mitigations Discussion

1. Property Value Depreciation

Real estate values near RHL have the potential to depreciate due to the proximity to the landfill. If this occurs, this would present a social and economic harm.

Proposed Mitigation

DCSWA has not proposed any mitigations for the potential social and economic harm of property value depreciation.

DEP Determination of Remaining Impacts

The Southern Area Landfill Expansion is proposed to be located within the current property boundary of RHL and limit the disposal area to the currently approved disposal boundary. Since DEP has not been presented with evidence of real estate depreciation caused by proximity to landfills, and the scope of the environmental assessment is limited

to the impacts of the proposed expansion conditions, DEP considers this to be a potential social and economic harm lasting the life of the landfill.

2. Traffic Related Harms

The proposed Southern Area Landfill Expansion would cause an increase in daily truck traffic along the haul route to RHL due to the material needs and construction activities associated with the soil berm. The primary access route to the Rolling Hills Landfill runs from SR 100 along SR 73 to Longview Road (SR 2053), then to Shenkel Road to the site. The majority of public comments received by DEP regarding the expansion application were concerned with impacts due to landfill truck traffic, specifically on SR 73 through the Borough of Boyertown due to the size of the vehicles and narrow streets. The impacts related to landfill truck traffic along the haul route include noise, dust, vibration, and pedestrian safety. The soil berm construction is expected to last 7-8 years, and normal operational traffic is expected to last the 10.4-year project lifespan.

Proposed Mitigation

DCSWA and the Borough of Boyertown have developed an agreement for DCSWA to provide funding and operational conditions to mitigate the impacts from traffic related harms. The funding agreement includes DCSWA paying the Borough of Boyertown \$75,000 per year for a period of 10 years for traffic signalization improvements along route 73 in Boyertown. The operational condition agreement includes: RHL being closed for operation on all Sundays; DCSWA notifying the Borough of Boyertown 2 weeks in advance of intent to operate on a Saturday and ceasing Saturday landfill activities at 12:00 p.m.; RHL Saturday landfill operations occurring on no more than 18 Saturdays per year and not occurring on a “Special Event Day” as designated by the Borough of Boyertown.

Department Determination of Remaining Impacts

DEP was assisted by PennDOT in the review of the expansion application’s traffic information to determine the potential harms associated with the Southern Area Expansion Application. While the waste acceptance rates will not be increased with this expansion, the potential harms along the haul route of noise, dust, vibrations, and pedestrian safety will remain throughout the lifespan of the expansion. There may be additional traffic impacts due to increased construction traffic to RHL, however the Traffic Analysis performed anticipates very little impacts to the study intersections, roadway and surrounding area. DEP and PennDOT have evaluated the provided traffic information and proposed mitigation agreement between DCSWA and the Borough of Boyertown and find the mitigation efforts to be acceptable. DEP considers traffic related impacts to be a moderate environmental harm lasting the life of the landfill.

3. Off-Site Odors

Landfill operations have the potential to generate off-site odors that may impact nearby residents.

Proposed Mitigation

DCSWA has successfully employed a nuisance control plan for odors at RHL including gas collection wells and daily inspections that would continue to be employed during the additional life of the landfill. DCSWA will continue to expand and operate their active landfill gas extraction system for controlling odors. DCSWA also employs a series of gas monitoring probes around the disposal area at RHL to evaluate the effectiveness of controlling off-site landfill gas migration. DCSWA limits the working face size and utilizes daily and intermediate cover over the surface of the exposed waste area.

Department Determination of Remaining Impacts

Since the Southern Area Landfill Expansion does not propose an increase in property boundary, waste disposal boundary or waste acceptance rates, DEP believes that the landfill nuisance control measures will remain effective. DEP considers the harm of off-site odors to be a minor environmental harm lasting the life of the landfill.

4. Off-Site Mud and Dust

Landfill operations have the potential to generate off-site mud and dust that may impact nearby residents.

Proposed Mitigation

DCSWA has successfully employed a nuisance control plan for mud and dust control at RHL including on-site tire wash to remove mud from vehicles and daily inspections on and off-site to detect tracked mud or dust emissions. DCSWA personnel utilize a water truck and street sweeper to wet down roads during dust-conducive weather conditions and clean paved roads affected by mud track-out.

Department Determination of Remaining Impacts

Since DCSWA will continue to employ its mud and dust control measures and the Southern Area Landfill Expansion does not propose an increase in property boundary, DEP considers the harm of off-site mud and dust to be a minor environmental harm lasting the life of the landfill.

5. Noise

Landfill operations have the potential to generate noise impacting nearby residents.

Proposed Mitigation

The Southern Area Landfill Expansion does not propose to expand the current property boundary and the proposed increase in disposal capacity will be maintained within the currently approved disposal boundary for the RHL therefore the existing horizontal vegetated buffer zones will be maintained. DCSWA will employ equipment muffler systems and limit operations to the DEP and Township approved time periods. DCSWA also provided a noise study to evaluate the current and potential future noise impact on the local residents. The study results concluded that the noise from the proposed expansion's site activities will be comparable to or less than the existing background daytime sound conditions.

Department Determination of Remaining Impacts

DCSWA provided a noise study to evaluate the current and potential future noise impact on the local residents. The study results concluded that the noise from the proposed expansion's site activities will be comparable to or less than the existing background daytime sound conditions. Based on the mitigation efforts by DCSWA, and the results of the provided noise impact study, DEP considers landfill operation related noise to be a minor environmental harm lasting the life of the landfill.

6. Vectors

Landfill operations have the potential to impact nearby residents by attracting vectors such as insects, rodents or birds to the surrounding area.

Proposed Mitigation

DCSWA currently employs vector controls that would continue during the proposed Southern Area Landfill Expansion. These controls include limiting the working face area and regular application of cover materials, proper stormwater controls, and daily landfill inspections.

Department Determination of Remaining Impacts

Since the Southern Area Landfill Expansion does not propose an increase in property boundary or waste disposal boundary, DEP believes that the landfill vector control measures will remain effective during the expansion. DEP considers off-site vectors to be a potential minor environmental harm lasting the life of the landfill.

7. Litter

Residents near RHL may experience litter resulting from operations of the landfill.

Proposed Mitigation

DCSWA employs litter control methods that would continue throughout the expansion. Mitigations include routine litter monitoring and picking along the approach roadway and disposal area and property as necessary. When conditions are windy, litter collection is increased as necessary. DCSWA also utilizes portable litter fencing around areas of the active disposal areas and may employ additional temporary litter fence if warranted by weather conditions. DCSWA also may restrict types of wastes disposed, restrict the size of the working face, use specific placement of daily cover, or temporarily restrict the unloading of wastes during severe wind events.

Department Determination of Remaining Impacts

Since the Southern Area Landfill Expansion does not propose an increase in property boundary or waste disposal boundary, DEP believes that the landfill litter control measures will remain effective during the expansion. DEP considers litter to be a minor environmental harm lasting the life of the landfill

8. Visual Aesthetic Impacts

RHL is partially surrounded by a wooded ridge that provides a visual buffer. Most of the landfill's visibility is from a distance on a very small viewshed on Route 662/Memorial Highway to the West-Southwest and the surrounding farmland in that area. DCSWA provided DEP a visual impact analysis which included a line-of-sight cross section and rendered photos showing existing grades, currently permitted final grades, and proposed final grades from Route 662/Memorial Highway. The Southern Area Landfill Expansion application does not propose to increase the current maximum permitted elevation of 884 feet or increase the disposal area or property boundary.

Proposed Mitigation

DCSWA has maintained landfill vegetation on outside slopes at RHL and will continue to vegetate with temporary or permanent cover as new areas are completed as per the landfill's revegetation plan.

Department Determination of Remaining Impacts

DEP has reviewed the visual impact analysis provided by DCSWA and existing visual conditions at RHL to determine the potential visual aesthetic harms associated with the proposed Southern Area Landfill Expansion. Since the expansion application does not propose to increase the maximum permitted elevation, disposal area, or property

boundary, and the surrounding wooded ridge provides a visual buffer, DEP believes the visual impacts from the project will be minimal. DEP considers visual impact to be a minor environmental harm lasting the life of the landfill.

Benefits Accepted by DEP

1. Economic Benefits to Local Business, Employment, Government, and Residents

Purchase of equipment, goods, and services: DCSWA has routinely purchased equipment, materials, and services from local vendors for operational needs at RHL. These purchases include approximately \$310,000 spent annually on fuel, oil and lubricants, amounting to \$3,224,000 spent over the 10.4 years of additional operation that would be provided by the proposed expansion. DCSWA also spends approximately \$833,000 annually on heavy equipment and equipment maintenance, amounting to \$8,663,000 spent over the 10.4 years of additional operation.

Employment: The current annual payroll associated with operation of RHL is approximately \$1,098,000 and sustains the employment of approximately 22 positions at RHL. This would amount to approximately \$11,419,000 over the additional 10.4 years of operation.

State and County Fees:

Pennsylvania Growing Greener Fund

- \$4.00/ton, excluding municipal waste incinerator ash and waste for alternate daily cover. Approximately \$11,512,000 over the 10.4-year expansion life.

Pennsylvania Recycling Fee

- \$2.00/ton, excluding municipal waste incinerator ash. Approximately \$5,756,000 over the 10.4-year expansion life.

Pennsylvania Post-Closure Fund

- \$0.25/ton, approximately \$2,321,000 over the 10.4-year expansion life.

Berks County Host Fee

- \$2.00/ton for waste accepted outside of Berks County. Approximately \$15,597,000 over the 10.4-year expansion life.
- Additional \$0.10/ton for waste accepted outside of Berks County. Up to a sum of \$300,000.

Free Disposal to Host Township Residents: DCSWA has provided free disposal of waste for residents of Earl Township and would continue throughout the 10.4 years of additional operation.

Tax Revenue: DCSWA pays approximately \$138,000 annually in payroll taxes, which would result in \$1,435,000 in tax revenue to local, state and federal agencies over the 10.4 years of additional operation.

Host Fees to Earl Township: DCSWA pays \$3.00/ton to Earl Township and would continue throughout the life of the expansion. The resulting benefit to the host municipality over the 10.4 years would be approximately \$27,851,000.

2. Environmental Benefits

Drop Box Recycling: DCSWA operates a drop box recycling program open to the public that would continue throughout the 10.4 years of additional operation.

Balancing

The following were considered social and economic benefits in the analysis:

- Purchase of equipment, goods and services
- Employment/wages
- Contribution to the Pennsylvania Growing Greener Fund
- Pennsylvania Recycling Fee
- Pennsylvania Post-Closure Fund
- Berks County Host Fee
- Free Disposal to Host Township Residents
- Tax Revenue
- Host Fees to Earl Township

The following are considered social or economic harms in the analysis:

- Property value depreciation is considered a potential social and economic harm

The following are considered environmental benefits in the analysis:

- Public drop box recycling program

The following are considered environmental harms in the analysis:

- Landfill truck traffic is considered a moderate environmental harm
- Odors associated with landfill operation is considered a minor environmental harm
- Mud and dust associated with landfill operation is considered a minor environmental harm
- Noise associated with landfill operation is considered a minor environmental harm
- Vectors associated with landfill operation is considered a potential minor environmental harm
- Litter associated with landfill operation is considered a minor environmental harm
- Visual aesthetic impact is considered a minor environmental harm

The benefits of the project must be balanced against the remaining harms after mitigation. In this case, that means that the environmental benefit of continued public drop box recycling, and the social and economic benefits to the residents, local government, business and employment must be balanced against the harms that were not fully mitigated. DEP has determined the proposed mitigations to the minor environmental harms of landfill nuisances of odors, mud and dust, noise, vectors and litter, to be acceptable as DCSWA will continue to employ the existing nuisance control plan at RHL. DEP has determined the mitigations to the minor environmental harm of visual aesthetic impacts to be acceptable. The existing visual buffer from the wooded hillside and continued implementation of the vegetation plan, coupled with no proposed changes to the maximum elevation or disposal boundary, should prove effective in minimizing visual impacts. DEP considers the environmental harm of increased landfill truck traffic to be a moderate environmental harm. DCSWA has proposed mitigations in an agreement with the Borough of Boyertown to address the concerns along the haul route in Boyertown. DEP along with the assistance of PennDOT has reviewed the transportation impact study along with the proposed mitigations included in the agreement with Boyertown and determined them to be acceptable. Since the traffic impacts exist with the current landfill operations and will increase with the expansion due to the additional construction and material hauling vehicles, DEP believes the environmental harm of traffic impacts has been partially mitigated.

Conclusion

DEP has evaluated the environmental assessment for this application as required pursuant to 25 Pa. Code Sections 271.126-271.127. Based on the review of the proposed mitigations to potential and known harms, DEP concludes that the mitigations adequately protect the environment and public health, safety, and welfare. DCSWA has demonstrated collectively that the benefits associated with the proposed Southern Area Landfill Expansion at Rolling Hills Landfill clearly outweigh the know and potential harms associated with the project.