pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

February 28, 2019

Mr. Joe Klobusicky, Site Manager
Chrin Brothers, Inc.
1225 Industrial Drive
Easton, PA 18042

Re: Environmental Assessment
Chrin Brothers Sanitary Landfill
Major Permit Modification – Eastern Expansion and Overlay
Application No. 100022-A151
APS# 882383 AUTH# 1093189
Williams Township, Northampton County

Dear Mr. Klobusicky:

The Department of Environmental Protection (DEP) has completed its review of the Environmental Assessment (EA) for the Chrin Brothers Sanitary Landfill (Chrin) Eastern Expansion and Overlay Application. The review was performed in accordance with the Municipal Waste Regulations, 25 Pa. Code §271.126 and §271.127, as well as DEP's Environmental Assessment Policy. DEP evaluated the information contained in the application to determine whether Chrin demonstrated that the benefits of the proposed project to the public clearly outweigh the known and potential environmental harms that will remain after the proposed mitigation.

DEP has determined that Chrin has shown that the identified benefits of the project clearly outweigh the remaining known and potential harms of the project. DEP's Harms vs. Benefits analysis is enclosed with this letter. DEP will begin the technical review of the information contained in the permit application.

Sincerely,

Roger Bellas
Environmental Program Manager
Waste Management Program

Enclosure

cc: EarthRes Group, Inc. (w/enc.)
Williams Township (w/enc.)
Northampton County (w/enc.)
Lehigh Valley Planning Commission (w/enc.)
City of Easton (w/enc.)
Easton Area Neighborhood Center (w/enc.)
Easton Area Public Library (w/enc.)

# Environmental Assessment Analysis (Harms/Benefits)

## Chrin Brothers Sanitary Landfill #100022
## Eastern Expansion and Overlay
## Environmental Assessment
## Williams Township, Northampton County

Prepared by:
Pa. Department of Environmental Protection
Northeast Regional Office
Waste Management – Facilities Section

February 2019

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## PROJECT DESCRIPTION

The Chrin Brothers Sanitary Landfill (Chrin) is comprised of an existing 108.7-acre landfill located at 1225 Industrial Drive in Williams Township, Northampton County. The area in the immediate vicinity of the landfill consists of commercial properties to the north and wooded and residential areas to the south, east and west. Industrial Drive and Interstate 78 run along the north and west sides of the landfill. The Lehigh River is located approximately ½ mile to the west. On July 14, 2015, the Department of Environmental Protection (DEP) received a major modification application for Chrin's Eastern Expansion and Overlay project. The proposed expansion area would be located within the current permit boundary and consists of an overlay on the existing disposal area and a new disposal area of approximately 32.7 acres located to the east of the existing landfill. The existing mechanically stabilized earthen (MSE) berm would be extended toward the east and west and increased in total height to generally between 30 to 40 feet. Included in the design of the overlay is a waste excavation project to facilitate liner replacement for the purpose of enhancing slope stability. Approximately 1.9 million cubic yards of waste would be relocated to the active disposal area and approximately 15.2-acres of current liner system would be replaced. The peak final elevation will increase by approximately 40 feet to 672 feet above mean sea level. The project does not propose to increase the daily maximum and quarterly average waste acceptance rates for the landfill. Chrin has indicated that the expanded landfill will allow the landfill to continue operating for approximately 8.7 additional years.

The Local Municipality Involvement Process meeting was held on October 5, 2015 at the Williams Township Municipal Building. The application was found to be incomplete and a letter was issued on October 16, 2015. After receipt of additional information on November 5, 2015, the application was found to be complete and officially accepted on November 9, 2015. On June 13, 2016, DEP issued the first Environmental Assessment Process (EAP) review letter. Chrin responded to the review letter on September 21, 2016. Additional information was received on November 21, 2016 and June 8, 2017. On October 18, 2017 DEP issued the second EAP review letter. Chrin responded to the review letter on December 26, 2017.

## PUBLIC INPUT

A public meeting was held on March 21, 2016 and a public hearing was held on January 20, 2017 at the Wilson Area High School. There has been public interest in the application and DEP has received written comments in addition to those received during the meeting and hearing. The public comments were considered during the environmental assessment process to help identify and evaluate the harms and benefits of the project.

## ENVIRONMENTAL ASSESSMENT PROCESS

25 Pa. Code § 271.126 and § 271.127 (relating to environmental assessment) require that an applicant conduct and demonstrate that the benefits related to the project clearly outweigh the known and potential environmental harms that remain after mitigation. Applications subject to the environmental assessment regulations must: (1) include a detailed analysis of the potential impact of the proposed facility on the environment, public health and public safety; (2)

describe the known and potential harms of the proposed project; (3) include a written mitigation plan that explains how each known and potential harm will be mitigated and the extent to which any known or potential harms remain after mitigation; and (4) demonstrate that the benefits of the project to the public clearly outweigh the known and potential environmental harms that will remain after the proposed mitigation. Benefits and known and potential harms can be identified by the applicant, DEP or other agencies or any municipality or person.

Benefits of the project consist of social and economic benefits that remain after taking into consideration the known and potential social and economic harms of the project and may also consist of the environmental benefits of the project. 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. In reviewing an environmental assessment, DEP evaluates social and economic benefits after offsetting them with social and economic harms. Environmental harms are evaluated after offsetting them with acceptable mitigation plans. The environmental harms are then balanced against the social and economic and environmental benefits to determine if the benefits clearly outweigh the harms.

Chrin submitted an environmental assessment in its application that provided their analysis of the potential impact of the proposed project on the environment, public health, and safety. DEP, after consultation with appropriate government agencies and potentially affected parties, evaluated the environmental assessment to determine whether the proposed project 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 harm that will remain after implementation of the proposed mitigations and whether the benefits of the proposed project clearly outweigh the remaining harms.

Benefits and harms are identified as "known" benefits or harms or "potential" benefits or harms. A known harm or benefit is one that DEP believes will occur in the future. A potential benefit or harm is one that might occur given the right circumstances. A known benefit or harm carries greater weight than if that same benefit or harm were a potential benefit or harm for a particular project.

For each benefit and harm the duration, frequency, intensity, reach (i.e., who will be affected) and sensitivity of receptor are evaluated. For this discussion, duration refers to how long a harm or benefit may continue. Frequency refers to how often it may occur. Intensity refers to how much the harm or benefit may be if or when it occurs. It should be noted that the words "duration," "frequency," "intensity," "reach," and "receptor sensitivity" will not be used to describe every harm and benefit in the analysis. However, these factors are considered for each harm or benefit and are discussed when appropriate.

Each harm is discussed individually below to determine if it has been fully mitigated. If a harm is fully mitigated, that harm is generally 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 ensure that the total effect of the project is such that the related benefits clearly outweigh the harms.

The harms detailed below are those identified by Chrin, DEP, or third parties who provided comment on the application. The mitigation measures and benefits have been edited from the application and reflect Chrin's own wording or viewpoint. There is no tacit or implied acceptance of statements made by Chrin within their application or repeated in the mitigation or the benefits sections of this document, by virtue of those statements being included in, or excluded from, this document. The "DEP Determination of Remaining Impacts", "DEP Evaluation of Benefit" and "Conclusions" sections are DEP's independent evaluation of Chrin's proposed mitigation and proposed benefits.

## HARMS AND MITIGATION

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

1. **Property Values (SE):** Effects to the value of nearby properties are a potential harm of the landfill operation. Public comment indicates devaluation of property is a concern of the proposed project.

   Proposed Mitigation: The landfill and expansion area are within an area designated as a Landfill Zoning District by the Township. In connection with that zoning designation, specific setback distances and other protective measures were established to reduce adverse impacts to properties in the surrounding area. Chrin has also agreed to install various landscape and screening measures to further remove or minimize impacts to surrounding areas. A Property Value Impact Analysis was performed. Based on the analysis, a potential property devaluation of as much as 1.1% (but decreasing with distance) due to proximity of nearby residential development is more than offset by a 5% increase in property value to all homes in the Township due to the significant host fees paid to Williams Township.

   DEP Determination of Remaining Impacts: According to public comments received, some local residents believe that property values would decrease if the landfill were expanded. The landfill is an existing facility that has operated at the present location since 1955. Residential development around the landfill has occurred despite the presence of the landfill, demonstrating that the landfill did not deter the sale of existing homes, or the construction of new residential development nearby. As demonstrated in the Property Value Impact Analysis, the proposed landfill expansion could potentially impact property values. Property devaluation is difficult to prove because of the many factors that affect the value of a property, perception being one of those factors. Because it is impossible to predict the exact impact on every property some potential harm will remain for the purpose of this environmental assessment; however, DEP considers the protective/screening measures to be adequate mitigation to address any potential impacts to property values.

2. **Aesthetics/Community Character (SE):** Visibility of the landfill from homes in the immediate vicinity of the landfill is a harm of the project.

Proposed mitigation: The height of the proposed expansion has been limited pursuant to the Host Community Agreement. Chrin will discontinue the use of white geomembrane for future temporary capping and use other colors (e.g. black, green and earth tones) instead. Visual impacts associated with the landfill slopes will be managed by continuing the current practice of placing cover soil and vegetating as intermediate grade slopes are attained. Final capping will be performed based on attainment of final grade slopes. Landscaping along the MSE berm was required and will be implemented as part of the Williams Township Land Development approval process. Pursuant to the Host Community Agreement with Williams Township, upon approval of the proposed expansion, Chrin will execute documents agreeing to never develop land on two tracts totaling approximately 76 acres.

DEP Determination of Remaining Impacts: Chrin has proposed adequate mitigation to address visual impacts associated with the project; however, because the project will increase the duration of time associated with visible impacts of active landfill operations some potential harm will remain for the purpose of this environmental assessment.

3. **Public Health and Safety (E):** Public comment indicates impacts to the health and safety (i.e., air pollution, cancer risk, water contamination, landslides) of the surrounding population is a concern.

   Proposed mitigation: The landfill is designed and operated to meet or exceed all applicable state and federal rules and regulations governing municipal waste landfills. A 2009 air emission study concluded that there was no risk to the surrounding community due to air emissions from the site. In 2013, a review of the geology of the site by a consultant selected by the Township concluded that the site is underlain by non-carbonate highly weathered unconsolidated saprolite.

   DEP Determination of Remaining Impacts: Regulations and permits are developed to be protective of public health and safety. DEP concurred with the 2009 air emission study. Site geology is addressed in other sections of this review. Specific harms that could contribute to health and safety concerns are already addressed individually; therefore, health and safety impacts was not considered as a separate harm for the purpose of the environmental assessment.

4. **Uncompensated losses to local government (SE):** More frequent road maintenance is a harm of the project.

   Proposed Mitigation: Chrin indicates the host fees paid under the Host Community Agreement is enough to cover the cost of maintenance and repair of all roadways in the Township. Chrin determined that the estimated cost of roadway maintenance for Industrial Drive for the 8.7-year period associated with the landfill expansion is $779,552, which is less than 5% of the host fees to be paid to the Township.

DEP Determination of Remaining Impacts: The host fees are adequate mitigation for any road maintenance associated with landfill traffic and no harm remains for the purpose of this environmental assessment.

5. **Litter (E):** On and off-site litter from the acceptance and disposal of waste is a potential harm.

   Proposed Mitigation: Chrin undertakes numerous measures to minimize and control litter. These mitigation measures include: keeping the working face as small as possible, prompt placement of daily and intermediate cover, use of fences and mesh, daily inspections of the site, the use of tarps on open trucks, compaction requirements for disposal trucks and the use of water, low contact precipitation or leachate as needed.

   DEP Determination of Remaining Impacts: Chrin has proposed adequate mitigation measures to prevent litter from being unsightly or leaving the site. DEP's experience based on inspections and oversight is that Chrin generally operates in compliance and has effective mitigation measures in place to control litter. However, because the mitigation depends on proper implementation of various measures some potential harm will remain for the purpose of this environmental assessment.

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

   Proposed Mitigation: Chrin utilizes proper operational procedures and placement of daily, intermediate and final cover to minimize the attraction and breeding of vectors. Inspections and observations determine if additional corrective action is required and Chrin will contract with a licensed extermination service if necessary. Currently only bird "screamer" pyrotechnics are used at the site. At the request of the Township, Chrin has ceased use of the bird cannon. Chrin will integrate several options for managing the nuisance bird population at the landfill. Those options include: pyrotechnics, audio (i.e., bird chase recording unit), and visual (i.e., Terror Eyes Holographic Balloon, Bird-X Prowler Owl, Bird-B-Gone Hawk Decoy, Eye Spot Balloon and Bird-X 3D Coyote Replica).

   DEP Determination of Remaining Impacts: Chrin has proposed adequate mitigation measures to prevent nuisances from vectors. DEP's experience based on inspections and oversight is that Chrin generally operates in compliance and has effective mitigation measures in place to control vectors. However, because the mitigation could fail to work as intended due to improper implementation or maintenance some potential harm will remain for the purpose of this environmental assessment.

7. **Odors (E):** Odors from waste disposal and landfill gas production are a potential harm. The expansion project includes a waste excavation and relining project. Exhuming waste will increase the potential for off-site odors.

Proposed Mitigation: Chrin's primary system for controlling odors is the active landfill gas collection and control system. In addition, Chrin employs various other odor control measures including but not limited to the use of deodorizing misters, odor mister vehicles, proper placement of daily cover, vehicle inspections for proper tarping and cleanout, leachate seep monitoring and control and prohibiting open burning. Chrin has added odor control measures that can be implemented during periods of old waste excavation to the NMCP. Specifically, perimeter line sprayers, strategic placement of mobile mister trucks and placement of odor control mister pods/barrels around the excavation area. Chrin will also increase odor patrols as necessary during the life of the project. In response to Township comments and off-site odors confirmed by DEP in 2017, Chrin has and is taking several measures to address the potential for odor nuisance events including upgrades to the landfill gas collection system, installation of new gas wells, coordination with Energy Power Partners (EPP) on performance of the landfill gas to energy plant, update of the Landfill Capping Plan and Temporary Cap Installation, implementation of enhanced surface monitoring measures, upgrades to perimeter line sprayer equipment, and review of Township standard reporting procedures.

DEP Determination of Remaining Impacts: Mitigation of odors depends on proper and adequate implementation of numerous mitigation measures, with which at times Chrin has struggled. Despite the recent adjustments and operational controls implemented at the site, DEP continued to observe off-site odors during odor patrol inspections conducted in April/May 2018, August 2018 and October 2018. Off-site odors in August and October did not appear to be as prevalent or persistent as they were during the April/May odor patrols; however, light off-site gas and garbage odors were still regularly detected primarily along Industrial Drive during the August odor patrols. That being said, Chrin completed a temporary geomembrane cap project in the area of concern and additional gas collection system enhancements were made prior to the October odor patrol. The October odor patrol resulted in a noticeable improvement of off-site conditions indicating that the capping and gas collection project had a positive impact on reducing off-site odors. Some potential harm will remain for the purpose of this environmental assessment and specifically, the frequency and intensity could potentially increase during the waste excavation and relining phase of the project.

8. **Dust (E):** Dust from truck traffic and construction activities at the landfill is a potential harm.

Proposed Mitigation: Chrin will use a sweeper vehicle to clean the paved access roads and a water tank truck to apply water to the landfill roads to minimize fugitive dust generation. Dust suppressants can be applied if needed as well. A section of the access road will be large size aggregate to reduce the tracking of mud and other debris from the landfill. A speed limit of 15 mph will be imposed on all vehicles on the site. The revegetation of the landfill slopes will minimize dust generation during wind storms.

DEP Determination of Remaining Impacts: DEP's experience based on inspections and oversight is that Chrin generally operates in compliance and has effective mitigation measures in place to control dust. While Chrin has proposed adequate mitigation, it is unlikely to provide complete mitigation (elimination) of dust; therefore, some potential harm will remain for the purpose of this environmental assessment.

9. **Noise (E):** Off-site noise is a potential harm of the landfill operation.

   Proposed Mitigation: Chrin's mitigation measures to minimize noise include: ensure all vehicles are equipped with the proper muffler systems and functioning properly; onsite speed limit of 15 mph; and operating vehicles according to the manufacturers operating instructions. The NMCP was revised to include more information regarding the use of "smart alarms" on some equipment, to add a section on isolation and absorption of noise and to indicate that Chrin has ceased the use of the "bird cannon" at the request of Williams Township. Chrin currently uses Bird Screamers, Bird Bangers and a Bird Chase recording unit. These measures have had minimal to no appreciable increase in noise levels.

   DEP Determination of Remaining Impacts: The proposed project should not exacerbate the existing potential for off-site noise, but it will extend the operating life of the landfill and therefore will extend the duration of the potential harm. While Chrin has proposed adequate mitigation, it is unlikely to provide complete mitigation (elimination) of noise; therefore, some potential harm will remain for the purpose of this environmental assessment.

10. **Unsafe Vehicles and Traffic Impacts (SE):** Impacts associated with unsafe and/or overweight vehicles on the roadways due to the operation of the landfill is a potential harm of the landfill operation. Furthermore, the potential impacts associated with additional trucks on the roadways due to the operation of the landfill will continue for the life of the project.

    Proposed Mitigation: Chrin has implemented measures for working face safety, condition of vehicles and compliance with site safety rules such as speed limits, overweight and cell phone use. If a concern is noted with a particular driver/vehicle at the working face management is notified and a violation notice is given to the driver with a copy sent to their respective hauling company. Chrin conducts spot safety inspections of vehicles and any deficiencies noted are identified in writing and provided to the vehicle driver, vehicle owner and a copy is filed at the site. If serious issues are discovered arrangements are made for repairs to be done before the vehicle leaves the site. Drivers/customers can also be cited for not following site safety policies such as speed limits, cell phone use and improper use/lack of personal protective equipment (PPE). All municipal solid waste transport vehicles entering the site are weighed. Any transport vehicles which are identified as over the legal weight limit will be recorded, with written notification given to the driver and a letter sent to the owner/company.

DEP Determination of Remaining Impacts: Based on DEP's inspections and review of records, Chrin's mitigation of truck safety impacts is generally effective. The proposed operation should not exacerbate the existing or potential harms, but it will extend the duration of those harms by providing new disposal capacity to extend waste disposal operations in the area; therefore, some potential harm for unsafe vehicles and a known harm of additional trucks on the roadways will remain for the purpose of this environmental assessment.

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

    Proposed mitigation: Chrin has implemented several measures related to fire safety. Specifically, each piece of heavy equipment has fire suppression systems and fire extinguishers, smoking is prohibited at or near the working face, water is available for use in fighting fires if necessary and the site also maintains an adequate supply of non-combustible daily cover soil that can be used to smother a fire. Chrin monitors the site for signs of subsurface fires/oxidation events. The various methods that would be used to mitigate a subsurface fire/oxidation event include injecting cooling agents/suppressants, excavation, installing a fire break and gas collection and control system adjustments.

    DEP Determination of Remaining Impacts: While Chrin does not have a history of fires and subsurface reactions, they can and do occur at landfills. Chrin has proposed adequate mitigation measures to monitor for and minimize the risk of fires and subsurface reactions. However, because the mitigation could fail to work as intended due to improper implementation or maintenance some potential harm will remain for the purpose of this environmental assessment.

12. **Groundwater Impacts (E):** The potential for groundwater contamination from the landfill is a potential harm. There is existing groundwater contamination in the area from the Industrial Lane superfund site which is a historic unlined landfill that Chrin took over and closed. Chrin operates the current landfill above and adjacent to this superfund site. The contaminants of concern are volatile organic compounds (VOCs) vinyl chloride, trichloroethene, perchloroethene, and benzene from the past disposal activities. A groundwater treatment system has been operating since 1999 to address this contamination. Groundwater monitoring, private well monitoring and landfill closure maintenance activities are routinely conducted and reported to DEP and the U.S. Environmental Protection Agency (EPA). The properties affected by the groundwater contamination associated with this superfund site are serviced by public water.

    Proposed Mitigation: Chrin uses a double liner and associated leachate collection system to prevent the release of leachate to the groundwater. These systems composed of primary and secondary liners and drainage layer systems, collects, and removes leachate from the landfill. A leachate detection zone monitors whether leachate is getting through the primary liner. A network of groundwater monitoring wells is utilized to evaluate whether the current landfill operations are impacting groundwater.

DEP Determination of Remaining Impacts: Based on groundwater monitoring data, there is no evidence that Chrin's current municipal waste landfill operation is impacting groundwater. Controls and groundwater monitoring systems are design features required by regulation. Their functions are to minimize, to the best extent practicable, some of the potential harms associated with the operation of the landfill. There will always be a potential harm associated with their failure to work as intended, their failure to work because of improper operation or maintenance, or their failure to work because natural events exceed the minimum/maximum standards used for design purposes. The proposed project is not expected to impact the remediation and monitoring activities associated with the superfund site and no additional harm related to the superfund site was considered for the purpose of this environmental assessment.

13. **Slope failure (E):** On March 12, 2013 a slope failure occurred in the closed and capped Stage 3D and 3E portions of the landfill. The proposed project includes an overlay which will extend over a large portion of the existing landfill including portions of the reconstructed Stages 3D and 3E. Public comment indicates that there is a concern that additional slope failures could occur at the site in the future. Following the 2013 slope failure, Chrin began clean up of the affected area and was directed to prepare an assessment of the root cause of the slope failure. A Slope Failure Report detailing the root cause of the slope failure was submitted to DEP in July 2014. On September 30, 2014 Chrin submitted an application for minor permit modification to reconstruct Stages 3D and 3E. DEP contracted with a third-party consultant to evaluate Chrin's Slope Failure Report, data collected during removal of waste from the slide area, the minor modification application for reconstruction of Stages 3D and 3E, as well as an evaluation of the underlying geology of the site. DEP's consultant prepared two separate reports, one of which focused on the underlying geology of the site. This geologic report was completed on April 11, 2017. The evaluation of Chrin's Slope Failure Report and the 3D/3E reconstruction minor modification application was completed on December 6, 2017. DEP approved the Stage 3D portion of the minor permit modification application on June 30, 2017. Following the completion of the third-party party consulting firm's report evaluating Chrin's slope failure report and the 3D/3E reconstruction minor modification, and upon receipt and review of supplemental information provided to DEP by Chrin, the Stage 3E portion of the application was approved on August 9, 2018.

    Proposed mitigation: Landfill slope stability is addressed within the application Form 24. The slope stability analysis was performed using very conservative assumptions. Based on the analysis performed, liner replacement within a portion of the existing landfill is necessary to achieve an acceptable design factor of safety to allow the overlay (unless additional testing using actual test data from the existing liner system indicates otherwise). Mitigation of potential slope failure is performed through coordinated liner system design and stability analysis, proper liner system installation and construction quality assurance (CQA) testing.

    DEP Determination of Remaining Impacts: The March 2013 slope failure is believed to be an isolated incident and the application for reconstruction of the affected area has

been approved, through the stage 3D/3E minor modification permit discussed above. DEP has determined that slope failure should not be considered a known or potential harm of the proposed project.

As with all proposed landfill construction projects, slope stability is addressed in the design of the project and fully evaluated by DEP during the technical review.

## BENEFITS

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

1. **Recycling Drop Off Containers (SE):** A free host community recycling center is provided at the landfill for use by the local population to promote and encourage recycling.

   DEP Evaluation of Benefit: DEP believes that the recycling drop off containers is a Social and Economic benefit because Chrin is providing access to free recycling. Because this is a service that the local community would not continue to receive without the expansion, this is a Social and Economic benefit for the life of the project.

2. **Benefits to Local Businesses (SE):** Ongoing operations and construction at the facility will provide significant direct commerce and associated expenditures.

   DEP Evaluation of Benefit: An accounting Economic Analysis provided by Chrin estimates an annual value of $10.7 million for operating expenditures and $4.57 million for variable operating expenses. While exact amounts are not guaranteed DEP recognizes there is an economic benefit and these direct commerce expenditures are considered to be a Social and Economic benefit of the project.

3. **Benefits to Local Employment (SE):** Chrin provides direct employment for an operational staff of about 33 people.

   DEP Evaluation of Benefit: Pursuant to the Economic Analysis provided by Chrin, the value of the social and economic benefits attributable to payroll associated with the project is calculated at approximately $3 million per year and will continue over the 8.7-year extended site life. The direct employment and the associated tax revenue are considered to be a Social and Economic benefit of the project.

4. **Benefits to Local Residents and Local Government (SE):** Williams Township, the host community for Chrin, will continue to receive host benefit fees in the amount of $4.00/Ton for municipal solid waste with the approval of the proposed expansion. In addition to the Township host fee, Chrin pays $2.00/ton for the state recycling fund and $4.25/ton for the Environmental Stewardship fund. The Economic Analysis provided by Chrin states that annually Williams Township will receive $1,813,455, the state recycling fund $899,910, and the Environmental Stewardship Fund $1,931,625. The host benefit fees amount to over 20% of the total Township operating revenue.

DEP Evaluation of Benefit: The host fees are based on tonnages and are paid on a quarterly basis and there is no guaranteed minimum amount. Chrin estimated the Township would need to use approximately $779,552 over the life of the expansion from the host fees to mitigate road maintenance; therefore, this amount was not considered towards the total value of the benefit. The remaining amount of the fees are considered to be a Social and Economic benefit for the life of the project.

5. **Benefits Based on Demographics (SE):** Chrin provides a free outlet to local residents for waste tires and leaf wastes; donates free waste and recycling containers; and has free high-quality landscape mulch available for area residents.

DEP Evaluation of Benefit: Because the free waste and recycling described are services that the local community would not continue to receive without the expansion, these are Social and Economic benefits for the life of the project.

## BALANCING OF HARMS AND BENEFITS

Based on the discussion of harms above, DEP has determined that the following known or potential harms are related to the proposed project:

| **Known Environmental Harms:** | **Known Social and Economic Harms:** |
|---|---|
| | Aesthetics/Community Character |
| | Traffic |
| **Potential Environmental Harms:** | **Potential Social and Economic Harms:** |
| Litter | Property Values |
| Vectors | Unsafe Vehicles |
| Odors | |
| Dust | |
| Noise | |
| Fire Risk | |
| Groundwater Impacts | |

Through the design and operational controls utilized at its existing facility, Chrin has been successful in adequately mitigating many of the harms associated with traffic, air quality, water quality, vectors and litter. This indicates that Chrin should be successful in mitigating the harms from the proposed project to the same extent. Capping and landscaping plans will mitigate the known visual impacts of the project and roadway maintenance costs are adequately covered by the host fees paid to the Township.

The potential harms associated with traffic, noise, vector impacts, and litter impacts will only persist as long as landfill disposal operations, or at least 8.7 years based on the disposal capacity provided by the project. Furthermore, while the potential for these impacts is limited to active landfill disposal operations, mitigation should limit the duration and frequency of any occurrences. The intensity of the harm is also impacted by the effectiveness of Chrin's controls in reacting and responding to the incident. Based on past experience, Chrin's design and operational controls should result in only infrequent occurrences of harms related to

traffic, noise, vectors, litter. These controls should also minimize the severity, or intensity, of any such occurrence.

The potential for water quality impacts will persist beyond the cessation of active landfill disposal operations. Based on groundwater monitoring data, there is no evidence that Chrin's current municipal waste landfill operation is impacting groundwater. As with the harms associated with the active life of the landfill, mitigation is expected to limit, if not completely prevent, any occurrences of water quality impacts.

The potential for landfill gas emissions and associated odors is another potential harm that will persist beyond the cessation of active landfill disposal operations, although it is important to note that capture of gas should improve under final cap and gas generation from the waste decreases over time. Chrin has struggled in the past to completely control odors associated with landfill gas emissions. While operational controls and Chrin's response to incidents have likely minimized the intensity of these instances, off-site odors have occurred in the recent past. However, Chrin's current additional efforts to increase and improve mitigation of odors is expected to limit the number, duration and intensity of future off-site odor occurrences.

Based on the discussion of the benefits above, DEP has determined that the following known benefits are related to the proposed project:

| **Known Environmental Benefits:** | **Known Social and Economic Benefits:** |
|---|---|
| | Recycling Drop Off Containers |
| | Benefits to Local Businesses |
| | Benefits to Local Employment |
| | Benefits to Local Residents and Government |
| | Benefits based on Demographics |

There are significant social/economic benefits to the local community in the form of host fees, with additional benefits arising from direct commerce expenditures, direct employment and free waste and recycling services. These benefits directly impact the local community and that impact can be very significant as far as Township revenue and jobs. The Township host fees amount to over 20% of the total Township operating revenue. The landfill provides 33 jobs and has significant operating expenditures. The social/economic benefits will have a duration of at least 8.7 years.

Chrin alleged additional benefits; however, DEP determined they either have not been adequately defined, are not benefits to be attributed to the proposed project or are more appropriately considered to be mitigation rather than benefits.

DEP considered the harms and benefits individually and collectively when balancing the harms against the benefits. DEP considered the identified environmental harms and their mitigation measures. The host fees are a significant social/economic benefit to the local community. The known social/economic harms (traffic and visual impacts) are expected to be of low intensity and adequately mitigated. The potential harms are not likely to occur or, should they occur, would be infrequent and of low intensity, as long as the proposed mitigation measures are implemented properly. Most of the harms associated with the project

are already associated with the existing landfill operation. DEP's experience based on inspections and oversight is that Chrin generally operates in compliance and has effective mitigation measures in place to control harms such as dust, vectors, litter and leachate. Chrin's past mitigation efforts have at times failed to completely eliminate off-site odors; however, the implementation of enhanced surface monitoring measures and updates to the Landfill Capping Plan are expected to further improve mitigation of odors in the future.

## CONCLUSIONS

Pursuant to 25 Pa. Code § 271.127, DEP has determined that Chrin has demonstrated that the benefits to the public from the project clearly outweigh the known and potential harms posed by it. The social and economic benefit to the local community from host fees is significant. Furthermore, the continued employment of landfill employees; and the revenue from municipal and state taxes and fees are also significant benefits. The structural and operational mitigation controls proposed by Chrin are adequate to prevent any major harms to the community.

## TECHNICAL REVIEW

DEP will now proceed with the technical review of the application. Due to the length of time that has passed since the application was first submitted, DEP requests Chrin provide either a current Form C1, Form MRW-C or Form HW-C.

Chrin's Form R was last updated in 2002. As part of this modification, for the technical review, Chrin should provide an updated Form R to include an updated liner compatibility and leachate treatability determination, and list of current approved Form U's that have been active and that have waste analysis within the last 5 years.

bcc: R. Bellas/WM File
D. Matcho: email PDF (w/enc.)
S. French: email PDF (w/enc.)
T. McGurk: email PDF (w/enc.)
E. Bloxham: email PDF (w/enc.)
R. Malizia: email PDF (w/enc.)
M. Bedrin (w/enc.)
D. Stull (w/enc.)
S. Robbins (w/enc.)
C. Connolly (w/ enc.)
A. Tarquino Morris (w/enc.)

EB:ms
WP: W2-581.doc
H/T: 2/27/19

EARTHRES GROUP, INC.
C/O DAVID HORVATH, P.G.
P.O. BOX 468
PIPERSVILLE, PA 18947

WILLIAMS TOWNSHIP
C/O MIKAL SABATINE, TOWNSHIP MANAGER
655 CIDER PRESS ROAD
EASTON, PA 18042

NORTHAMPTON COUNTY COUNCIL
NORTHAMPTON COUNTY COURTHOUSE
669 WASHINGTON STREET
EASTON, PA 18042-7475

LEHIGH-VALLEY PLANNING COMMISSION
C/O SUSAN L. ROCKWELL, SENIOR ENVIRONMENTAL PLANNER
961 MARCON BOULEVARD, SUITE 310
ALLENTOWN, PA 18109

CITY OF EASTON
C/O MAYOR SALVATORE J. PANTO, JR.
ONE SOUTH THIRD STREET
EASTON, PA 18042

EASTON AREA NEIGHBORHOOD CENTER
C/O JUDY MATTHEWSON
902 PHILADELPHIA ROAD
EASTON, PA 18042

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