

Camp Hope Run Landfill

Application for Municipal Waste Landfill Permit #101719

Boggs Township, Clearfield County

Environmental Assessment Analysis

Prepared by:

Pa. Department of Environmental Protection
Northcentral Regional Office
Waste Management – Facilities Section
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pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Introduction

Project Description

PA Waste, LLC. ("PA Waste" or "Applicant") submitted to the Department of Environmental Protection ("Department") the first phase of an application for a permit to construct a municipal waste landfill ("landfill") in Boggs Township, Clearfield County, PA. The landfill application was filed on July 3, 2017. The site is a brownfield that was clear cut for timber in the 1980s and strip mined for coal in the 1990s. The streams located on the property are impacted by acid mine drainage from the previous mining activities on this site and adjacent properties.

The proposed site is located on a 2,000-acre parcel approximately seven miles southeast of Clearfield located on the west side of Crooked Sewer Road. Approximately 217 acres is to be the lined disposal area with additional acreage for support operations for a total permitted area of 845 acres. The lined landfill would provide approximately 37 million cubic yards of waste disposal capacity and would operate for 21 years at the acceptance rate of 5,000 tons per day.

This Environmental Assessment addresses PA Waste's municipal waste permit application ("Application") which requests 845 acres be permitted to accept municipal waste and for support operations for the landfill.

On August 29, 2017, the Department held a Local Municipality Involvement Process Meeting, ("LMIP"), regarding the application, pursuant to Section 271.202 of the Department's regulations, 25 Pa. Code §271.202. The LMIP meeting was held and the Department, applicant, and municipal officials discussed the Application, the Department's permit review process, and any concerns and questions of the municipal officials. Concerns expressed at the LMIP meeting included various environmental impacts, traffic concerns, waste generation locations, and other social/economic issues. On September 13, 2017, the Department determined that Phase I of the application contained the required information as set forth in 25 Pa. Code §271.202(c).

PA Waste currently has a host agreement with Boggs Township which was signed on September 14, 2004.

Permit Term

The applicant submitted to the Department information supporting their request for an extended permit term as set forth in 25 Pa. Code §271.211(b)(2), which was needed to obtain necessary financing for the facility. If the Department's evaluation of the information supplied by the applicant is adequate to meet the regulations, a 21-year term will be set on this proposed permit. If the extended term is not warranted, a 10-year term will be set on this proposed permit.

Environmental Assessment Process

Harms and Benefits

Municipal waste and residual waste regulations, 25 Pa. Code §§ 271.126, 271.127 and 25 Pa. Code §§ 287.126, 287.127, respectively, (relating to environmental assessments), require that applicants proposing to operate municipal and residual solid waste management facilities assess the impacts of the facility and demonstrate that the benefits of the project clearly outweigh the known and potential environmental harms that will remain after the proposed mitigation. The benefits of the project can be social and economic, and/or environmental. Social and economic benefits are evaluated after offsetting them with social and economic harms. Environmental harms are evaluated after offsetting them with acceptable mitigation plans. To determine whether an impact is a harm or a benefit, the Department compares the applicant's proposal to the conditions that would exist if the project did not move forward. The environmental harms are then balanced against the benefits to determine if the benefits clearly outweigh the harms. Therefore, the proposal from PA Waste, LLC is compared to the conditions that would exist if the project did not move forward. Details of evaluating harms and benefits in environmental assessments are described in the Department's Environmental Assessment Process Policy, Document No. 254-2100-101, dated August 24, 2002.

The application submitted by PA Waste, LLC in support of the construction and operation of the proposed Municipal Waste (MW) landfill includes an analysis of the potential impact of the facility on the environment, public health, and safety. The Department will evaluate the environmental assessment to determine whether the project has the potential to cause any environmental harm. In this document, the Department 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.

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 of the harms and the benefits to ensure that the total effect of the project is such that the benefits clearly outweigh the harms.

Benefits and harms are identified as "known" benefits or harms or "potential" benefits or harms. A known harm or benefit is one that the Department feels certain will occur in the future. For example, increased local, state, and federal income tax revenue from employment resulting from the project is considered a known benefit. A potential benefit or harm is one that might not occur given the right circumstances, but has the potential to occur under other circumstances. A known harm carries greater weight than if that same harm were a potential harm. Benefits should be concrete and particularized and not mere speculation.

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.

Occasionally, these factors can have multiple implications for a particular harm or benefit. As an example of these, 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 facility, i.e., until it 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.

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 impacted by the project is considered a better benefit than one that just impacts a few people.

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 each harm and benefit in the analysis. However, the concept of each as described above is discussed when appropriate.

The harms and benefits of the project can be social and economic, and /or environmental. To determine whether an impact is a harm or a benefit, and the extent of that harm or benefit, DEP compares the conditions that would result from the applicant's proposal to the conditions that would exist if the proposed project did not move forward. Social and economic benefits are evaluated after offsetting them with social and economic harms. Environmental harms are evaluated after offsetting them with acceptable mitigation plans. When balancing the harms and benefits, the Department considers a harm only to the extent that the harm would remain after mitigation. The Department evaluates the mitigation measures to ensure that, individually and collectively, they adequately protect the environment and the public health, safety and welfare. The environmental harms are then balanced against the benefits to determine if the benefits clearly outweigh the harms.

Site Suitability

Section 507 of the Municipal Waste Planning, Recycling, and Waste Reduction Act ("Act 101"), 53 P.S. §4000.507 (a) and 25 Pa. Code §273.139(b)(2) states that if a landfill is not in the county plan, it must be demonstrated to the Department's satisfaction that the site is at least as suitable as alternative locations giving consideration to environmental and economic factors, and that the proposed facility will not interfere with the implementation of the approved county plan or with municipal waste collection, storage, transportation, processing or disposal in the host county.

Since this proposed site is not part of the Clearfield County Solid Waste Plan, the additional information as required by Act 101 and the Municipal Waste Management Regulations has been included and evaluated. It is required that this facility not interfere with the County plan, therefore the proposed landfill cannot accept waste from within Clearfield County unless or until changes to the plan are made by the County.

Harms and Mitigation Discussion

Traffic

Description:

The Applicant conducted an in-depth Traffic Impact Study, (“TIS”), for a previous application for this site. The Department required that the study be updated to address the Pennsylvania Department of Transportation’s (“DOT”) concerns along with the local concerns regarding traffic that were expressed at the LMIP meeting. This study includes, but is not limited to approach routes, traffic counts, flow at intersections, sight distances, safety, and other potential impacts from traffic. The primary approach route for the facility will be from Interstate 80 (I-80), via SR 879 and SR 153. The municipalities included in the approach route are the Borough of Clearfield, Lawrence Township, and Boggs Township.

Mitigation Measures Proposed:

There are mitigation measures already installed at some intersections and others that are proposed in accordance with this updated study and DOTs requirements and recommendations. These include things such as traffic signal light upgrades, traffic control measures, limitations on hours of operation, and sight distance improvements at numerous intersections. It is anticipated that these measures will limit the frequency and intensity of many of the traffic issues that are identified.

Department Determination:

The DOT has reviewed the TIS and provided their review to the Department. The Department has received an approval letter from DOT for the amended TIS. The Traffic Impact Study is part of the permit application and DOT’s recommendations have been taken into consideration in the Department’s permit review of the Environmental Assessment. The Department has determined that the traffic impact is a significant harm that has been mitigated to the best of the Applicant’s ability with safety and traffic control measures. It remains an ongoing partially mitigated moderate harm for the operational life of the facility.

Landfill Leachate

Description:

Waste disposal creates leachate which is a known environmental harm that could potentially impact the underlying geology and the water system if it is not collected and managed correctly.

Mitigation Measures Proposed:

The Applicant proposes to install a double composite liner and cap system that will meet or exceed the requirements of 25 Pa. Code §273.161, §§273.251 – 260, and §271.231 and provide a barrier for leachate collection.

The liner system will consist of, from top to bottom:

- a protective cover/leachate collection zone with a leachate collection system;
- a 60-mil thick high-density polyethylene (HDPE) primary geomembrane;
- a geosynthetic clay liner (GCL),
- a geocomposite drainage layer leachate detection zone;
- a 60-mil thick HDPE secondary geomembrane; and
- a prepared low permeable soil subbase.

The Applicant does not propose any construction beyond regulatory requirements or considered standard industry practice.

The Applicant proposes to construct a leachate management system that will meet or exceed the requirements of 25 Pa. Code §§273.162 - 163 and §§271.271 - 277. This system is designed to treat the leachate generated by the landfill. Leachate generated in the proposed waste disposal area will be collected by a leachate collection network and the leachate detection piping. Leachate will be discharged by gravity and pumps to a series of manholes and piping that extend around the landfill perimeter. Leachate collected from the perimeter system will be directed to and temporarily stored in enclosed tanks prior to treatment. From the leachate storage tanks, leachate will be pumped to an on-site Industrial Wastewater Treatment Plant ("IWTP") for treatment and subsequent discharge.

The leachate treatment facility will be permitted, designed, and constructed by the Applicant on the property but off the permit boundary. The leachate treatment facility will be designed with sufficient capacity and capabilities to treat flows from the landfill. The leachate treatment facility will discharge effluent to Clearfield Creek under a National Pollutant Discharge Elimination System (NPDES) permit. The facility will utilize a modular design that will allow for expansion.

Department Determination:

Adequate collection and treatment of leachate generated by the landfill must be treated as part of the permitting for this site. Compliance with these requirements are considered a mitigation of a harm for the life of the facility and beyond the closure period of the facility until leachate generation is reduced to a level acceptable to the Department. The Applicant's proposed collection and treatment systems substantially mitigate the potential for leachate to contaminate the environment. The Department has determined that a minor potential harm remains for the life of the facility.

Landfill Gas and Odors

Description:

Operation of the landfill will create landfill gas ("LFG"). One characteristic of LFG is its odor. Therefore, there is the potential for LFG to migrate offsite and create nuisance odors.

Mitigation Measures Proposed:

The Applicant proposes to construct a landfill gas and odor management system that will meet or exceed the requirements of 25 Pa. Code §273.171, §§273.292-293. Possible harms related to LFG will be mitigated by constructing, operating, and maintaining the LFG collection and control system and through good operational practices at the working face. The effectiveness of these systems will be monitored by the gas migration and monitoring network.

Department Determination:

The Applicant's proposed gas collection and odor management systems will substantially mitigate the potential for landfill gas and odors to migrate offsite. However, the Department has determined that a minor potential harm remains for as long as the waste at the site is generating gas.

Sediment, Erosion, and Stormwater Impacts

Description:

Construction of the landfill and its ongoing operation will create the potential for sediment, erosion and stormwater runoff issues. These are potential harms that require measures be put in place to prevent these harms.

Mitigation Measures Proposed:

The Applicant proposes to construct control systems that will meet or exceed the requirements of 25 Pa. Code §273.151. Stormwater runoff from disturbed areas will be collected by temporary and/or permanent channels and diversion berms within and around the landfill, excavation/borrow areas, and stockpiles. Runoff from inactive portions of the landfill which have reached interim or final grades will be collected in bench terraces. The bench terraces will discharge either to the perimeter channels or to temporary down chutes that subsequently discharge to the perimeter channels. From these conveyances, stormwater will be routed to sedimentation basins. In addition to structural measures, nonstructural measures such as vegetating disturbed areas and minimizing disturbed areas will be used to manage stormwater.

Department Determination:

Operating the sediment, erosion, and stormwater controls correctly per the regulations will fully mitigate the potential harms associated with construction and operation for the life of the facility, as well as beyond the closure period of the facility.

Visual Impacts

Description:

Currently there is no activity on the proposed site. The construction of the entrance, the site infrastructure, the disposal area, and the daily operation of the facility will all have visual impacts to the area, which are known harms.

Mitigation Measures Proposed:

The line of sight visibility for a three-mile radius was evaluated and, based on natural contours and heavily wooded surrounding areas, the Applicant stated there is minimal visibility of the landfill operations at full elevation. There are two residences located to the east and approximately four to the south that will have a partial, obstructed, or a distant view of the proposed landfill. All other local residences are completely screened from view of the proposed landfill by either intervening topography and/or vegetation.

The Applicant states that in order to mitigate the visual impact on the few residences that can see the proposed landfill, they will construct and operate the proposed landfill using the soil berms, construction sequencing, disposal techniques, and cover/closure methods. Specifically, to mitigate visual impacts during operations, to the extent possible, each new lift will initially be constructed along the outer slope of the cell (once the working area exceeds the elevation of adjacent topography). This will be followed by filling behind this outer slope barrier. After this outer slope barrier is completed, the view from adjacent observers and residences will essentially be of a grass covered slope that blends into the background setting of adjacent topography. To further reduce the visual impact of the proposed landfill, capping and revegetation of filled areas will occur shortly after final waste elevations have been achieved.

Department Determination:

The Department considers this to be a known minor harm for the operational life of the facility and after the facility has been closed. The harm will be more intense during the operations and lessen after closure.

Odor**Description:**

Odors from waste that would be generated by the operation of the facility and by collection vehicles are considered to be a known harm.

Mitigation Measures Proposed:

The Applicant addresses the odors at the working face by operational controls, such as landfill gas collection and daily cover. The Applicant addresses the offsite odors from collection vehicles through the implementation of a Traffic Compliance Plan.

Department Determination:

The operational controls and the buffer area noted by the Applicant will mitigate some potential odor issues, both generated by the site and by vehicles. Additionally, odor issues will be further addressed through an air monitoring plan and an Air Quality Plan Approval permit from the Department. Despite mitigation measures, the Department considers this to be an ongoing partially mitigated harm for the duration of the operation of the facility.

Noise**Description:**

Noise generated during the construction and daily operation of the facility is a known harm that exists from activity that is both on and off site of the landfill. The noise that may be involved in operation of the facility includes traffic, both incoming and outgoing, and equipment during construction and operation.

Mitigation Measures Proposed:

Noise on site will be mitigated by proper maintenance of the equipment to operate at 85 decibels or lower and the use of personal protective equipment for those working at the site. The noise migrating off site is mitigated by distance from residential areas and barriers for isolation and absorption. Offsite noise from traffic are anticipated to be minimal since it is the same type of traffic as is already present in the area and is limited in operation due to the TIS and the Traffic Control Plan.

The Applicant proposes best management practices in maintaining equipment to minimize noise generated. The Applicant also conducted a survey and the Noise Assessment Report is included in the Application. The study concluded that the substantial buffer distances to off-site, occupied dwellings will routinely and completely mitigate proposed landfill noise, to the point where noise levels will be at pre-landfill background levels at the nearby dwellings.

Department Determination:

The Department has determined that noise is a fully mitigated potential harm. Based on the information submitted, noise impacts should be insignificant based on operation safeguards, distance from residential and recreational areas, and environmental buffers.

Dust and Particulates

Description:

Dust generation is a known harm that could potentially increase with the excavation activity during construction of the landfill and waste disposal activities.

Mitigation Measures Proposed:

The dust and particulate emissions will be addressed through the Air Quality Plan Approval Permit. Additionally, low truck speeds, watering and sweeping of roads, a truck washing station, and vegetation will all be utilized to minimize dust.

Department Determination:

The Department has determined that dust generation is a fully mitigated potential harm during the operation of the facility through measures proposed and the environmental buffer. Additionally, particulates will be addressed separately through conditions in the air monitoring plan and Air Quality Plan Approval permit from the Department.

Litter

Description:

Litter is a known harm from the operation of a landfill.

Mitigation Measures Proposed:

The control measures proposed are operational and will minimize litter from the working face and from the landfill operation. These measures include: maintaining a small working face; positioning the working face to take advantage of surrounding topography to limit direct exposure to wind; regulating the number of vehicles discharging at a particular time so that compaction can be applied as quickly as possible; and situating portable and permanent litter fences downwind of the working face.

Department Determination:

The Department has determined that litter is a minor potential mitigated harm based upon operative controls put in place during the operation of the facility.

Vectors

Description:

Vectors, such as rodents, birds, wild animals, and insects, are potential problems at landfills. The presence of vectors has environmental and health risks from movement of waste to diseases.

Mitigation Measures Proposed:

The control of vectors will be addressed through minimizing the working face, utilizing daily cover, and grading the site to eliminate insect habitat.

Department Determination:

The Department has determined that vectors are a minor potential mitigated harm.

Waste Transportation

Description:

Improperly contained loads, leaking trailers, overweight vehicles, and truck safety are potential harms that exist outside the proposed permit boundary of the facility.

Mitigation Measures Proposed:

The Applicant intends to implement an educational approach to address this problem. The Traffic Compliance Plan included in the Application addresses loads, weights, and safety. The Plan has proactive steps that are to be taken by the landfill, based on the situation, to work with the haulers and transport companies to make them aware of any problems with their hauling trucks. This plan calls for quarterly random 8-hour truck inspections to be performed by the applicant with 48-hour notification to the PA State Police and to DEP.

Department Determination:

The Department has determined that the Traffic Compliance Plan has been mitigated to the best of the Applicant's ability; however, it remains a minor potential harm for the operational life of the facility.

Real Estate Value**Description:**

Operation of the landfill is a potential harm to real estate values. This is a rural area with a low population density. Additionally, this is a brownfield site that has been logged and mined in the past. There is a hunting camp, Camp Rattlesnake, adjacent to the landfill that has a deeded right-of-way access that crosses directly through the footprint of the landfill. The Applicant states that the closest residences to the landfill are two residential properties located approximately 2,500 feet from the property boundary and 3,000 feet from the waste disposal area with wooded area as a buffer. The next closest residential properties are located more than one mile to the south of the landfill operations and more than two miles to the north and northwest of the waste disposal operations.

Mitigation Measures Proposed:

The Applicant states that the area has historic impact from strip mining and logging, in addition to large areas of undeveloped, uninhabited, and forested land. Therefore, the Applicant speculates that because of the nature and location of the site in conjunction with large buffer areas, any impact from the landfill on property values would be minimal.

In the instance of the two nearest residents within 2500 feet of the landfill, the Host Agreement, Addenda C, the Applicant will offer to purchase the residents at 100% of the present appraised value, within two years of acceptance of waste.

Department Determination:

The Department is unaware of any agreement between Camp Rattlesnake and PA Waste regarding this right-of-way. The Department has determined that this is a potential harm to these specific three properties.

Wetlands**Description:**

There are wetlands that will be impacted by the construction of the facility. There are no Exceptional Value ("EV") wetlands within the landfill footprint impacting the setback; however, there are non-EV wetlands within the landfill footprint. Impact to wetlands is a known environmental harm associated with the construction and operation of the landfill. Nine wetlands will be directly impacted and three wetlands may have secondary impacts as a result of the construction of the landfill.

Mitigation Measures Proposed:

These impacted wetlands total 0.66 acres. Impacts will be addressed through mitigation requirements by the Watershed Program. A wetland mitigation plan has been proposed to replace the affected wetlands acreage with wetlands of higher value and function at a ratio of approximately 1 to 1.

Department Determination:

A permit under Chapter 105 will be required for construction that will impact these features per §273.202 (2) (ii) (A). The proposed design may need to be amended based on the Watershed Program's review of the mitigation plan. If the planned design needs to change significantly, this section will be reevaluated. The Department has determined that the construction of wetlands of higher quality fully mitigates this harm.

Fish, Game, and Plants**Description:**

The Applicant has not identified any concern with known or potential threats to fish, game and plants, however, there could be impacts from the construction and operation of the landfill.

Mitigation Measures Proposed:

The proposed project is not located within an area of concern for fish, game, or plants; however, it is known that rattlesnakes are present on this property based upon the Department's knowledge of the site. No mitigation measures were proposed by the Applicant.

Department Determination:

The Department has determined that a potential harm exists with respect to rattlesnakes. Although the May 4, 2017, Pennsylvania Natural Diversity Index, (PNDI) did not generate any concerns, it is recommended that the Applicant take appropriate actions to minimize any impact to rattlesnake habitat.

Recreation**Description:**

The Applicant has not identified any private recreation areas of concern; however, there is a private hunting club that is adjacent to the property.

Mitigation Measures Proposed:

No mitigation measures were proposed by the Applicant.

Department Determination:

The Department believes that a potential environmental harm could be associated with the proposed construction and operation of the landfill to this private recreation facility. Access via a deeded right-of-way to the hunting club will be cut off by construction and operation of the landfill.

Benefits Accepted by the Department

Redevelopment of Impacted Land

Description:

The Applicant states that the proposed landfill will provide an environmental benefit by redeveloping a brownfield while addressing the current conditions remaining from historic timbering and mining operations. The construction of the landfill will remove the acidic mine spoils from the mined area and dispose of them in the lined area. The excavation and construction will also sever the infiltration that is currently causing acid mine drainage, (AMD) at the site.

Department Determination:

The Department agrees that the proposed landfill will provide an environmental benefit by addressing the current and future AMD issues on the site caused jointly by mining activity and from the historic mined acid bearing rock, 'pods'. The estimated volume of the acid bearing rock that will be moved is 300,000 cy. Form D of the Application does not provide a time line for the movement of the 'pods' or 'hot rock'; however, Form 1 (Facility Plan) of the application includes a schedule in Attachment 1, Exhibit 1-1.2 in which the applicant plans for 2,610 days to relocate this material, beginning at the start of S1 waste placement. Based on this schedule, all 'pods' and acid bearing rock that needs to be moved, would be moved in the first 7 years of operation. By addressing the acidic mine spoils, it will allow for development of a previously mined area. The removal and proper disposal of the 'pod' spoils within the first 7 years of operation are considered to be an environmental benefit that will continue to be a benefit because the site has continued to have a degrading impact on the surrounding surface waters.

AMD Groundwater Treatment

Description:

The Applicant states that during construction of the landfill, an AMD interceptor trench will be installed to allow for transmission to the AMD treatment ponds. The construction of the interceptor trench will allow groundwater to be collected before further degradation is caused by the AMD and will be transmitted to the treatment ponds to allow for treatment and discharge. This treated discharge will be of a higher water quality than is currently on site.

Department Determination:

Form D of the Application does not provide a time line for treatment of AMD or installation of the interceptor trench; however, Form 1 (Facility Plan) of the application addresses the groundwater treatment in the narrative. The AMD treatment upgrades are to be concurrent with the start of landfill construction. As the S3 area is exposed (estimated in year 10 of site operations) the interceptor trench is to be constructed. The Department considers the upgrade of the AMD treatment at the start of construction of the landfill and the installation of the interceptor trench at around year 10 when the S3 overburden is excavated, to be an environmental benefit that will continue to be a benefit and agrees that it aids in correcting an existing harm created by previous site activities.

Mine Area Reuse and AMD Elimination

Description:

The Applicant states that construction of the landfill will cut off the groundwater that is infiltrating into the mine spoils and the acidic mine formation. Elimination of the potential AMD groundwater recharge and the removal of the acid rock will ultimately increase the water quality of the Susquehanna River via tributaries.

Department Determination:

The proposed landfill will provide an environmental benefit by removing the acid rock and the remaining coal, ultimately eliminating the AMD. The elimination of the AMD discharges will also free up Department resources currently expended on this problem to focus on other environmental issues. The Department considers this to be an environmental benefit that will continue to be a benefit because it aids in correcting an existing harm created by previous site activities.

Erosion, Sedimentation, and Stormwater Control

Description:

The site has historic sedimentation ponds and stormwater controls that have fallen into disrepair. Additionally, the site is used by unauthorized ATVs which compounds the problem. The development of the site will require the erosion, sedimentation, and stormwater controls to be updated. The operation of the landfill will also prevent the unauthorized ATV use.

Department Determination:

The Department considers the proper design, construction and use of these controls to be an environmental benefit. Prevention of further unauthorized ATV use on the site is not considered a benefit.

Additional Recycling

Description:

The Applicant states that the proposed landfill will provide recycling collection containers at the facility in accordance with Act 101. The containers will enable residents to drop off recyclable glass, aluminum cans, cardboard, and plastics. Recycling is required by the regulations and Act 101. However, the applicant is providing an opportunity to recycle four materials rather than just the three required. It is also providing an additional site to the community to recycle and reduce the waste stream.

Department Determination:

The Department considers this to be an environmental benefit for the operational life of the facility.

Employment by Landfill

Description:

The Applicant states that the landfill will provide employment for residents of the host Township, the County, and surrounding communities. The Applicant states that they anticipate hiring 20 full time employees with an annual payroll of \$712,000.00. The applicant also estimates 15 -30 seasonal employees due to construction activities.

Department Determination:

The Department considers this to be an economic benefit during the construction and for the operational life of the facility.

Tax Revenue**Description:**

The Applicant states that development of the site would increase the tax base generated by the property. In 2016, the assessed taxes to the Township, County and school district totaled \$14,184.00. With the landfill construction, it is estimated that those taxes would increase to \$255,000.00 annually.

Department Determination:

The Department considers this to be an economic benefit during the construction and for the operational life of the facility.

Host Municipality Fees**Description:**

The Municipal Waste Planning Recycling and Waste Reduction Act ("Act 101") requires a \$1.00/ton host municipal benefit fee for all tonnage delivered to and disposed of at the facility. Based on the Host Agreement signed between PA Waste, LLC and Boggs Township, the Township is to receive \$2.00/ton for all tonnage delivered to and disposed of at the Camp Hope Run Landfill. Over the proposed 21-year life of the facility, this is estimated to be approximately \$54,000,000.00. The applicant states that this will help with numerous projects while maintaining lower taxes in the township.

Department Determination:

Although the potential use of these fees is speculative, the amount of the fees provided to the township is real and greater than the amount required by the Act. The Department considers this to be an economic benefit for the operational life of the facility.

Recycling Fees**Description:**

Act 101 requires a \$2.00/ton Recycling Fee for all tonnage disposed of at the facility. Over the proposed 21-year life of the facility, this is estimated to be approximately \$54,000,000.00. The applicant states that this flows back to the community through state grants.

Department Determination:

The Department does not consider the disbursement of these funds to be a benefit since such disbursement would be at the Department's discretion. However, the funds generated by the fee are considered to be an economic benefit for the operational life of the facility.

Environmental Stewardship Fees**Description:**

The Environmental Stewardship and Watershed Protection Act ("Act 68") requires a 25¢/ton Environmental Stewardship Fee for all tonnage received at the facility. Over the proposed 21-year life of the facility, this is estimated to be approximately \$6,750,000.00. The applicant states that this flows back to the community through state grants.

Department Determination:

The Department does not consider the disbursement of these funds a benefit since such disbursement would be at the Department's discretion. However, the funds generated by the fee are considered to be an economic benefit for the operational life of the facility.

Disposal Fees**Description:**

Act 90 requires a \$4.00/ton fee for all tonnage disposed of at the facility. Over the proposed 21-year life of the facility, this is estimated to be approximately \$108,500,000.00. The applicant states that this flows back to the community through state grants.

Department Determination:

The Department does not consider the disbursement of these funds to be a benefit since such disbursement would be at the Department's discretion. However, the funds generated by the fee is considered to be an economic benefit for the operational life of the facility.

Local and Regional Community**Description:**

The Applicant states that the construction and operation of the site will generate significant economic benefits to the community through the use of local contractors, businesses, vendors, and suppliers to support the landfill activities. The Applicant claims that approximately \$4,500,000.00 will be spent annually on goods and services with local contractors, businesses, vendors, and suppliers. Over the proposed 21-year life of the facility, this is estimated to total approximately \$94,500,000.00.

Department Determination:

The Department considers this to be a minor economic benefit during the construction and operational life of the facility. This is considered minor since it is not quantitative and there is no firm commitment by the Applicant to contract with any particular local contractors, businesses, vendors, and/or suppliers.

Benefits Rejected by the Department

Evaluation of Need

Description:

The Applicant states that a need for this site is established by the future need of the citizens of Pennsylvania for safe, cost effective waste disposal sites that are situated on environmentally suitable sites in locations that generate minimal impacts to the public health and safety of the surrounding communities. The Applicant attempts to support this by detailing the time needed to permit and construct a landfill site, the regulations involved, and current waste trends in PA.

Department Determination:

Any benefit as a result of the construction of this landfill is speculative. It is not known where the waste disposed of at this site would be generated. The Applicant will not be accepting waste from within the County and therefore does not address specific needs of the local area.

Waste Disposal Capacity

Description:

The Applicant states that the development and operation of the facility will provide local environmentally safe waste disposal to the local area with little to no impact to the adjacent community. The Applicant also states that this facility will aid in elimination of illegal waste disposal and will provide a cost-effective disposal site and an environmentally safe alternative.

Department Determination:

The Department does not consider this to be a benefit because the landfill is not in the County Solid Waste Plan and therefore will not be an option to the local community for municipal waste disposal.

Proper Waste Disposal

Description:

The Applicant states the host agreement includes free disposal to Boggs Township residents. Additionally, a local disposal site will aid in elimination of illegal waste disposal since long hauling distances will no longer be required. Affordable waste management facilities help deter illegal waste disposal by providing individuals and industries with an affordable waste disposal option. The host fees provided by the landfill to the Township could be used to clean up abandoned properties and illegal waste sites.

Department Determination:

The Department does not consider this to be a benefit because the landfill is not in the County Solid Waste Plan and therefore will not be an option to the local community for municipal waste disposal. The host fees and their potential uses by the Township are speculative and cannot be considered a benefit.

Landfill Gas

Description:

The Applicant states that a priority of the site will be reuse of the landfill gas ("LFG"). This is to be achieved by utilizing LFG for energy production to power the leachate treatment facility and offsite industries as much as possible. The Applicant projects the maximum production rate to be at year 24 of the landfill. The Applicant plans to either deliver the gas to

a natural gas pipeline or to generate power and send it back to the electric grid. Another option is to utilize it at the leachate treatment facility.

Department Determination:

The Department does not consider this to be a benefit. It is a mitigation of a harm.

Wastewater Treatment

Description:

The Applicant states that the proposed landfill includes construction of a wastewater treatment facility to treat leachate generated from the facility for discharge into Clearfield Creek. The treatment facility will be designed and constructed with sufficient capacity for treatment of the leachate from the landfill.

Department Determination:

The Department does not consider this to be a benefit because leachate treatment is a mitigation of a harm created by landfill operations.

Waste Disposal

Description:

The Applicant states that the proposed landfill will provide local economic solid waste management services such as collection, disposal, and recycling. This will reduce the accumulation of waste and illegal dumping in the communities. By providing these services the landfill will provide an economic waste disposal option to the local and regional community.

Department Determination:

The Department does not consider collection services to be a benefit as the Applicant is not proposing to provide those services. The Department does not consider disposal to be a benefit because the landfill is not in the County Solid Waste Plan and therefore municipal waste disposal will not be an option to Clearfield County residents.

Community

Description:

The Applicant states that operation of the landfill will provide a civic benefit through monetary and manpower support to community organizations. The applicant does not quantify the benefit or specify who would be the beneficiaries of such support.

Department Determination:

The Department does not consider this to be an economic benefit because it is a potential, speculative, non-quantitative benefit.

Employment in the Community

Description:

The Applicant claims that based on its studies, if the landfill employs approximately 20 full time employees, then there could potentially be an additional 10 employees to fulfill support services (garages, deliveries, haulers, etc.) within the community. The applicant claims that these jobs will reverse declining employment in the area. This increase in employment to the area assumes that local residents will be hired.

Department Determination:

The Department does not consider this to be a benefit because it is speculative. The landfill has no control over hiring employees for support services.

Free Waste Disposal**Description:**

The Applicant has agreed to provide free waste disposal to the current residents of Boggs Township of up to 1.5 tons per household per year. This is estimated to be an economic benefit to the community of \$2,500,000.00 in value over the life of the landfill.

Department Determination:

The landfill is not in the County Solid Waste Plan; therefore, use of it is not an option to the local community for municipal waste disposal. The Department does not consider this to be an economic benefit.

Environmental Assessment Criteria

The Applicant is required to include an analysis of potential impact of the proposed facility on the environment, public health and public safety. The following criteria are part of the Environmental Assessment that are above and beyond the specific situations that are identified as harms or benefits. These criteria are also utilized in the evaluation of the site suitability of the proposed location and the overall Environmental Assessment determination.

Geologic:

The seismic stability and the geologic formation have been considered and there are no concerns in the area of the landfill. It is noted that there are mineral resources in the landfill area, most notably coal due to the underlay of the Lower Kittanning and Clarion formations within the site. These areas were historically partially strip mined. An adjacent property was also strip mined for coal and another adjacent property was reported to have a small clay deep mine that has collapsed. Extensive borings were conducted and no deep mines or geologic instability was noted. The site is not located within a seismic risk zone and is not underlain by any geologic hazards, unstable foundation conditions, or deep mined areas. The Department believes that there are no impacts resulting from the proposed construction and operation of a landfill at the Site.

Scenic Rivers:

There are no designated Pennsylvania Scenic Rivers or National Wild and Scenic Rivers in the area. The site is not close to these sensitive areas and therefore the Department believes that there is no environmental harm to scenic rivers or national wild and scenic rivers associated with the project.

Parks:

The proposed project site is over one mile from National, State, County and Municipal parks, state forest picnic areas, the Allegheny River reservoir, the Appalachian Trail, National natural landmark U.S. National Park Service, and wild areas designated by the Department of Conservation and Natural Resources. The landfill is located far enough from any sensitive areas therefore the Department believes that there are no concerns of environmental impacts to local, state, and federal parks associated with the proposed construction and operation of the landfill at the site.

Water Uses:

There are three private water wells within ½ mile of the proposed waste disposal area. The two residential wells are upgradient and on the other side of Camp Hope Run tributary. The project is not within the recharge area. These wells show degradation due to previous mining east of their locations. The other well is reported to be a non-potable source for the hunting camp located adjacent to the landfill. This well is also upgradient of the disposal area but is non-potable due to preexisting conditions. Therefore, there is no concern of adverse impact to these water supplies.

The project is located in the watershed boundary of Camp Hope Run, Sanbourn Run, and Clearfield Creek. Camp Hope Run and Sandbourn Run are classified as Cold Water Fishery and Clearfield Creek is classified as a Warm Water Fishery. These all flow into the West Branch of the Susquehanna River,

which is a Warm Water Fishery. There is no concern of adverse impact to these waters from the proposed landfill activities because of discharge limitations and erosion and sedimentation controls.

Historic/Archaeologic:

The proposed site is not within the area of concern of a listed historic property or a site placed on the National Register of Historic Places or on the PA Archaeological Site Survey. The Department believes that there are no environmental harms to historic or archaeological sites that are associated with the proposed construction and operation of a landfill at the site.

Airports:

The proposed site is not located within 6 miles of an airport. There is a small public uncontrolled airport just northeast of Clearfield that is approximately 8 miles from the proposed landfill. The closest commercial airports are DuBois and State College, which are over 20 miles away. Because of the distance of this site from airports, there is no concern of adverse impacts.

Zoning and Land Use:

The site is an old mining site and is not part of any agricultural use. There are no restrictions related to the zoning of this site. A preliminary land development plan was submitted and approved by the Township on April 11, 2005. A host municipality agreement was signed with the Township on September 14, 2004.

Planning:

The proposed operation is not in conflict with the County Solid Waste Plan because the landfill will not be accepting waste from within the County. Currently, the facility is not in the county plan. The Applicant intends to request to be added to the county plan, should this facility be permitted and constructed. Unless or until such time as an amendment to the county plan is passed that includes this site, no municipal waste from Clearfield County will be accepted for disposal.

Balancing of Impacts

The Applicant submitted information to the Department in support of the asserted mitigation of potential harms and resulting benefits of the project as follows:

Benefits

The Applicant asserts that the excavation of acidic rock in the area to be developed for waste cells is an environmental benefit. The Department considers this to be a benefit as it addresses an environmental problem created by historic mining of the site and minimizes continued acid mine drainage. The Department also considers this to be a benefit to the extent that it is projected to be completed in 7-years.

The current AMD impacts from the site will be significantly improved by the treatment of the existing drainage area, cutting off the recharge to the previously mined area, and the removal of the acidic rock. The Department considers this to be an environmental benefit for the site and the tributaries that receive flow from the site.

The economic benefits that are calculated by the Applicant based on annual tonnage are considered to be benefits by the Department. This includes the host fees to be paid to Boggs Township, and benefits due to an increase in the tax base, local economy, and employment.

The assertion that there would be economic benefits to local organizations, civic groups, and charities are speculative and not considered to be benefits by the Department. Contributions to any civic organizations are not quantified or defined. Furthermore, any potential economic benefits to community organizations are not tied to the operation of the landfill or the tonnage of the site.

The Applicant asserts that because the landfill will address the disposal needs of the region, it is an environmental benefit. The Department does not consider this to be a benefit because the landfill is not in the county plan and cannot be used by Clearfield County residents.

Harms

The Applicant states that truck traffic, and all the traffic related harms will be mitigated by implementing the recommendations of the Traffic Impact Study reviewed by Pa. DOT. Safety issues, noise, odor and emissions from the truck traffic, are all harms that will be present in varying degrees during the life of the permit and will impact the community along the approach routes to the landfill. Despite mitigation, the Department believes that potential harms associated with truck traffic remain during the lifespan of the permit.

The Applicant states that there will be impact to wetlands on the site. However, these impacts are mitigated by the creation of wetlands greater in acreage and quality. The Department considers this to be a mitigated harm. Other impacts will be addressed and mitigated as outlined.

Additionally, visual harms and potential harms to the three properties as outlined, are harms that remain.

Conclusion of the Environmental Assessment

Harms and Benefits

Pursuant to 25 Pa. Code §271.127, the Department reviewed the environmental assessment prepared by PA Waste, which is part of the application for a permit to construct a municipal waste landfill in Boggs Township, Clearfield County, PA. The Department reviewed the identified harms and mitigation plans to determine whether there were additional harms and whether all known and potential environmental harms were mitigated. The Department evaluated each mitigation measures and collectively reviewed the mitigation measures to ensure that individually and collectively they adequately protect the environment and the public health, safety, and welfare. As described above, the Department concludes that the Applicant has demonstrated that the collective benefits associated with the proposed project clearly outweigh the known and potential environmental, social, and economic harms that will remain after the proposed mitigation.

Site Suitability

Since the proposed project is not identified in the county plan, the Department has performed an assessment to determine if the proposed site is at least as suitable as other sites as required by Section 507 of Act 101 and 25 Pa. Code §§ 271.126 and 271.127. The Department has concluded that the site is at least as suitable as previously approved municipal waste landfills. The Applicant indicated in the application that the landfill would not interfere with the implementation of the approved county plan and would not interfere with the municipal waste collection, storage, transportation, processing or disposal in Clearfield County since they will not be accepting waste from within Clearfield County.

Department Conclusion

The environmental and economic factors, including the benefits and harms resulting from the development and operation of the landfill along with an assessment of site suitability, were evaluated both individually and collectively. The Department's position is that the known benefits attributable to this project clearly outweigh the remaining known and potential harms after considering the mitigation measures that the Applicant proposes to implement. The Department has also concluded that the site is at least as suitable as alternative locations. Approval by the Department of the Environmental Assessment does not constitute or guarantee approval of the permit application.